Catalog

Custom Orthotic Central Fabrication
Unique Orthotic Componentry
PDQ Quartz Infrared Ovens

January, 2007
The OTS Corporation

The OTS Corporation is located in the beautiful Blue Ridge Mountains of Western North Carolina in a suburb of Asheville. The 110,000 square foot facility houses three divisions; the PDQ oven manufacturing facility, the component assembly plant and the orthotic central fabrication facility. OTS central fabrication was founded in 1978 by Timothy Pansiera, CO, in Deerfield Beach, Florida. It quickly forged a reputation as a high-end manufacturer of orthotic devices and is still a leader in central fabrication. By 1983 a second division was created to produce the popular StepLock knee joint. A few years later the first thermoformable ankle joint, Wafer Ankle, now the Integrated Ankle, was introduced. In 1990, in an effort to accommodate it’s rapid growth, OTS moved to Barnardsville, North Carolina where it soon opened a third division to manufacture the PDQ Quartz Infrared Ovens, widely regarded as the “Gold Standard” of ovens in the industry. In the year 2000, OTS acquired a manufacturing facility in Bradenton, Florida to handle the increasing demand for orthotic component production. This facility is known as “OTS of Florida” and is responsible for all of the heavy machining with final assembly done in NC. By 2003 OTS had once again outgrown it facilities and had to relocate to a larger home. The new address is a sprawling 110,000 square feet of manufacturing space. Come and grow with us!

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Orthotic Central Fabrication

OTS is committed to providing the highest quality orthotic device that can be made. To give our customers a high level of service, we’ve implemented a Quality Assurance Program. Each device we manufacture goes through rigorous inspection by a qualified technician before it is shipped to our customer to insure the accuracy of fabrication and a cosmetic finish. Some details that are standard features on OTS orthoses not found on other orthoses are:

- Flares on all leading edges.
- Uprights attached by SS countersunk screws for ease of adjustments and superior strength.
- Smooth flowing modifications for an attractive appearance.
- Tongues and anterior sections vacuum formed under posterior plastic for smooth inner surface and appearance.
- Sonic welded Velcro straps.
- Low glare, sandblasted finish on uprights.
- Professional, courteous help from a qualified technician.

If the orthosis you need is not shown, contact us for a consultation and quotation. With over 25 years in custom orthotic central fabrication, we have the experience to fabricate anything.

OTS central fabrication has been serving the O&P industry for a quarter of a century with uncompromised quality and fast turn around times. Whether your practice requires a full time dedicated staff or a responsible source for overflow work, you can count on our reputation. We’re here for you...

One Year Limited Warranty

OTS stands behind the workmanship of our custom orthoses. We will warrant any orthosis we make for the period of one year against defects in materials and craftsmanship. Patient molds and tracings are kept in house for a period of five weeks to facilitate alterations to plastic cuffs and metal framework.
OTS Price Buster Packages!

You can save big money when you use OTS components on your central fab job! To make it easier for you, we’ve bundled our most popular orthoses with the InterLock knee joint and Integrated ankle joints. Save time and money when you use OTS components.

Price Buster #1  MTL-31 Special

Metal Knee Ankle Foot Orthosis with:
InterLock knee joints.
Integrated Ankle AROM joints.
Solid Stirrup.
(Slight upcharge for DA ankle. See pages 34-36 for leather and shoe charges).

Price Buster #2  PM-12 Special

Plastic and Metal Knee Ankle Foot Orthosis
InterLock knee joints.
Plastic solid ankle trim.
1/16” LDPE tongues with Velcro straps.

Price Buster #3  MTL-30 Special

Metal Ankle Foot Orthosis
Double aluminum side bars.
Integrated Ankle AROM joints.
Solid stirrup.
(Slight upcharge for DA ankle. See pages 34-36 for leather and shoe charges).

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OTS Price Buster Packages!

Price Buster #1

Price Buster #2

Price Buster #3
UCB—Foot Control Orthosis
With or without molded metatarsal arch.

SMO—Supra-Maleolar Orthosis
With or without molded metatarsal arch.
Proximal flair over maleolus.

AFO—Ankle Foot Orthosis
PLS, Semi-solid or Solid.
With or without molded metatarsal arch.
Proximal flair.
Sonic welded Velcro® strap.

CROW boot—Charcot Restraint Orthotic Walker
Six Dacron backed Velcro straps.
Proximal flair.
Crepe rocker sole.
Foam liner throughout.
No foam at plastic overlap.
(for improved appearance & function)

MTL-30 Ankle Foot Orthosis
Double aluminum side bars.
Limited or free motion ankle joints.
Solid stirrup.
ankle

AFOs

PL-05  UCB—FOOT CONTROL ORTHOSIS

PL-05-A  SMO—SUPRA-MALEOLAR ORTHOSIS

PL-06  AFO—PLS or SOLID AN-

Options
- A) Unfinished
- B) Finished
- C) Removable Tibia Strap Pad
- D) Foam Liner:
  - 1) Calf Area Only
  - 2) All Over
- E) Vacuum Form Only

PL-07  ANTERIOR-POSTERIOR AFO

PL-07-A  CROW BOOT (Charcot Restraint Orthotic Walker)

Options
- 1) Removable foam foot insert for clamshell walking boot

MTL-30  ANKLE FOOT ORTHOSIS

- A) Attach to Shoe
- B) Single upright AFO
- C) PTB lacer with uprights and solid stirrup

800-221-4769
PM-15 Anterior-Posterior, overlapping, hinged, (any type plastic) shell, Velcro closures: from your negative wrap.

PM-16 Full-length (any type plastic) shell with anterior section as above (please specify PLS or solid trim).

PM-17 Shell with aluminum side bars and solid stirrup.

PM-18 Shell with limited or free motion stainless steel bars, long tongue stirrup.

PM-19 Free motion round (FMR) metal and plastic ankle lap joints attached to UCB insert, separate anterior section.

PM-20 Shell with aluminum bars attached to NYUCB (free motion or adjustable range of motion ankle joints included)
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<th>ANTERIOR-POSTERIOR PTB (shell only)</th>
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<td>FULL LENGTH AFO/ANTERIOR PTB SHELL</td>
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<td>SHELL WITH ALUMINUM BARS ATTACHED TO NYUCB</td>
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</table>
PM-11 OTS Knee Control Orthosis
1/8” thickness copolymer plastic posterior shells (proximal and distal)
1/16” L.D. polyethylene offset anterior tongues
1/8” foam covering the entire surface, including tongues.
Four Velcro straps.
1/4” x 5/8” aluminum protrusion type, drop lock knee joints.

PL-08 Anterior-Posterior knee splint cylinder
Foam liner throughout.
Cut-out at patella.
PM-11  OTS KNEE CONTROL ORTHOSIS
   -A) Removable Suspension Wedge
   -B) Padded Patella Pad with Strap
   -C) Screw-on AFO Extension
       (from same mold)

PL-08  ANTERIOR-POSTERIOR KNEE SPLINT
   Options
      -A) Screw on AFO extension (from same mold)
PM-12 Plastic Knee Ankle Foot Orthosis
Polypropylene or co-polymer plastic shells (proximal and distal).
Aluminum protrusion type, drop lock knee joints.
1/16” L.D. polyethylene tongues (proximal and distal) with Velcro straps.
Limited motion or D.F.A. plastic trim line at ankle (please specify).

PM-13 Knee Ankle Foot Orthosis
For Control of Fractures
Polypropylene or co-polymer plastic shells (proximal and distal). Please specify at no extra charge: with or without (1) condyle extension tabs (2) Ischial seat.
Separate anterior sections Please specify: distal anterior shell or padded patella pad.
Non-protrusion drop lock aluminum side bars.
Limited motion or PLS plastic trim at ankle (please specify).

PM-14 Same as PM-13 with extra strength FMR (Free Motion Round)
Metal and plastic ankle lap joints attached to UCB insert.

PL-09 Anterior-Posterior KAFO cylinder
Foam liner throughout.
Cut-out at patella.

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PM-12  “STANDARD” KAFO
Knee Ankle Foot Orthosis: (Plastic and Metal)

PM-13  KAFO FOR CONTROL OF FRACTURES

PM-14  Same as PM-13 with extra strength FMR ankles

PL-09  ANTERIOR POSTERIOR KAFO CYLINDER
MTL-31 Knee Ankle Foot Orthosis
Double aluminum side bars, drop locks.
Limited or free motion ankle joints.
Solid stirrup.
(see list for Additional Modifications)

MTL-32 Genu Valgus/Genu Varus Corrective Orthosis
Single side bar (no knee joint).
Split pelvic bands.
Free motion hip and ankle joints.
Height adjustment extensions.
Complete with leatherwork.

See pages 26 through 39 for Leatherwork and Additional Modifications.
Knee ANKLE FOOT ORTHOSIS
-A) Credit First Fit
-B) Attach to Shoe

LW-2) Standard Leatherwork
(see page 30)

MTL-32 GENU VALGUS / GENU VARUS CONTROL ORTHOSIS
**Description**

**PLEASE SUPPLY A FULL LENGTH CAST FOR THE FOLLOWING:**

PM-21 “Hybrid” KAFO. All metal thigh attached to plastic AFO.
-B) Leatherwork: Full circumference proximal thigh cuff, distal thigh insert, and patella pad.

PM-22 Same as PM-21, except plastic thigh attached to metal AFO.
Free or limited motion ankle with solid stirrup, attached to shoe.
-B) Leatherwork: Full circumference calf cuff.
PM-21 "HYBRID" KAFO. ALL METAL THIGH ATTACHED TO PLASTIC KAFO.
   -A) Built From:
      -1) Full Length Mold
      -2) Partial Mold and Tracing
   -B) Leatherwork

PM-22 "HYBRID" KAFO. PLASTIC THIGH ATTACHED TO METAL AFO.
   -A) Built From:
      -1) Full Length Mold
      -2) Partial Mold and Tracing
   -B) Leatherwork
   -C) Attach to Shoe
PM-10 RGO
(Reciprocating Gait Orthosis)
-A) Control Package #1
- Extra Long Bars (Hip)
- Non Protrusion Joints
- Ribs at Ankle
- Extended Foot Plate
- Patella Pads

-B) Control Package # 2
- Extra Long Bars (Hip)
- Bail Locks
- Carbon Fiber Ankles
- Extended Foot Plate

PH-21 Hip Control Orthosis With Hip Joint
- Any type natural plastic pelvic and thigh sections.
- Both sections are foam lined with offset tongues.
- Length adjustment extension on thigh section.
- Drop lock protrusion hip joint may be set to limit motion if desired (please specify).

PH-22 Hip Control Orthosis With Thigh Section (One Piece)
- Fabricated from any type natural plastic (please specify).
- Lateral offset tongue on pelvic section.
- Medial offset tongue on thigh section.

PH-23 Hip Control Orthosis With Pelvic Band
- 3/4 Circumference aluminum pelvic band (or less).
- 2” foamy Velcro pelvic belt.
- Drop lock protrusion aluminum hip joint may be set to limit motion if desired (please specify).
- Thigh section fabricated from 1/8” copolymer with offset tongue and 1/8” foam liner or your choice.
- Length adjustment extension on thigh section.

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PM-10  RGO (Reciprocating gait orthosis)
      -A) Control package #1
      -B) Control package #2
      -C) Horizontal cable system
      -D) Rocker bar system
      -E) Abduction hip joints

PH-21  HIP CONTROL ORTHOSIS WITH HIP JOINT
       Designed for control of post-surgical artificial hip replacement

PH-22  ONE-PIECE HIP CONTROL WITH THIGH SECTION
       -A) Foam Liner

PH-23  HIP CONTROL ORTHOSIS WITH PELVIC BAND
PC-1 Aluminum Pelvic Band  
1 1/4” or 1 1/2” x 1/8” aluminum band contoured to your tracing and measurements, attached to KAFO(s).  
Choice of hip joint options and closures.

PC-2 Plastic Pelvic Shell  
-A) Shell Only  
   Easy entry design.  
   Abdominal pad provided.  
-B) Shell with Band and Joints.  
   Similar designs as described in PC-3.  
   Includes hip joints.  
   One aluminum band connects the joints.

PC-3 RGO Pelvic Section  
We vacuum form a fully lined L.D. polyethylene posterior shell.  
Two 1/8” aluminum bands are then shaped around the posterior plastic.  
Fillauer type RGO uprights are then fastened to these bands.  
The plastic shell is attached to the metal frame with (6) 10-32 screws.

PH-24 Two Piece TLSO Body Jacket With Thigh Extension  
(fabricated from any type natural plastic, please specify)

PH-25 Bilateral Hip Abduction/Adduction Orthosis With Metal Pelvic Band  
Foamy padded Velcro pelvic belt.  
Bilateral protrusion type hip joints.  
Plastic thigh shells with tongue.  
Foam liner on shells
ALUMINUM PELVIC BAND
- A) With Unilateral Hip Joint
- B) With Bi-lateral Hip Joint
- C) With Non Protrusion Hip Joints (ea.)
- D) With Leather Closure
- E) With Foamy Velcro Closure
- F) With Plastic Belt Stiffener
- G) Dial lock hip joints

PLASTIC PELVIC SHELL
- A) Shell Only
- B) Shell With Band And Joints

RGO PELVIC SECTION
- A) Complete
- B) Complete/No Cables
- C) Extra Long Bars
- D) RGO Design (No cables)

BI-VALVE TLSO BODY JACKET WITH THIGH EXTENSION (HIP SPICA)
- A) Foam Liner

BILATERAL HIP ABDUCTION/ADDUCTION ORTHOSIS
- A) Adjustable Abduction Hip Joint (pr.)
PL-10  Plastic Arm Control with FMR and Metal Lap Type Elbow Joints
Fabricated using 1/8” copolymer plastic.
1/16” LDPE offset tongues.
Excellent for control of fractures.
FMR (free motion round) metal overlapping elbow hinge.

PL-11  WHO (Polyethylene Wrist-Hand Orthosis/Foam Lined)
Easy entry design.
Opening on dorsal surface.

PL-12  Humeral Fracture Brace
Fabricated using 1/8” polyethylene or your choice.
1/16” LDPE tongue formed under posterior plastic.
Fully lined with 1/8” foam.
Upper Extremities

PL-10  PLASTIC ARM ORTHOSIS WITH FMR METAL LAP TYPE JOINT
       Options
           -A) Foam liner
           -B) Separate 1/8" LDPE anterior shell

PL-11  WHO (Polyethylene Wrist-Hand Orthosis/
       Options
           -A) One piece splint
           -B) Clamshell (anterior/posterior) splint

PL-12  HUMERAL FRACTURE ORTHOSIS
AC-1 Modular Type
Attached to metal uprights.

AC-2 Modular Ankle Joint Extension
Addition to any plastic cuff or plastic and metal orthosis for dynamic or ROM control.

AC-3 Integrated Ankle, thermoformable
Double Action, dorsi-assist or adjustable range of motion.
Slim, cosmetic design.
Same internal workings as in a modular-style joint.
AC-1 MODULAR TYPE WITH UPRIGHTS
   -A) Double Action (pr.)
   -A-1) OTS Integrated Ankle, double action
   -B) Dorsi-Assist (pr.)
   -C) Pins
      1) OTS or Becker
      2) Pope/USMC (ea)

AC-2 MODULAR ANKLE JOINT EXTENSION ON PLASTIC
       AND METAL ORTHOSIS (LIMITED OR FREE MOTION)
   -A) Attached to Shoe With Solid Stirrup
   -B) Attached to NYUCB Insert

AC-3 INTEGRATED ANKLE, THERMOFORMABLE (OTS)
   -A) Double Action, Dorsi Assist, Adjustable Range of Motion
AC-5 Gillette/Tamarac Joints
A flexible rod that allows free motion.
Available in regular or Dorsi-Assist.

AC-6 Gaffney Joint
Metal to metal lap joint that allows free motion with good M-L stability.

AC-7 Appalachian Ankle (AP-02)
Overlapping metal to metal hinge.
Allows free motion with good M-L stability.

AC-8 Select Ankle
Manufactured by USMC. ROM Control, and vacuum formable.

AC-9 Patton Bottom Extension
Provides ambulatory traction and a true non-weight bearing design.
Stainless steel bars extend below the heel with a crepe pad to provide a cushioned “heel strike”.
A traction strap between the sole of the shoe and the crepe pad may be added.

AC-10 Lively Splint
L.S.U./Fillauer design allows complete R.O.M. in all planes.
Excellent for reducing flexion contractures when used with elastic control straps. Not for ambulatory use.

AC-11 Oklahoma Ankle
Manufactured by Becker.
Formable plastic free motion ankle joint.
AC-5  GILLETTE/TAMARAC JOINTS (Becker)
   -A) Free Motion
   -B) Adjustable 90 Degree Post Stop

AC-6  GAFFNEY JOINT
   -A) Free Motion
   -B) Adjustable 90 Degree Post Stop

AC-7  APPALACHIAN ANKLE (OTS)
   -A) Free Motion
   -B) Adjustable 90 Degree Post Stop

AC-8  SELECT ANKLE (USMC)

AC-9  PATTON BOTTOM EXTENSION

AC-10 LIVELY SPLINT ANKLE (attached)

AC-11 OKLAHOMA ANKLE
   -A) Free Motion
   -B) Adjustable 90 Degree Post Stop
**Description**

AC-12 Camber Axis Joint (model #750)
- Available in two sizes.
- Adjustable range of motion.
- 300 series stainless steel.

AC-14 Elite
- Thermoformed under plastic to provide a stop or a light dorsi assist.
- Can be added to any thermoplastic lower extremity orthosis with free motion ankles.

AC-15 Model #655 Motion Limiter
- Provides Plantar and Dorsi-Flexion stops.
- Three sizes available.

AC-16 Model #755 Motion Limiter
- Cost effective plantar stop for thermoplastic KAFO.
- One size only.

AC-17 PDC Ankle Joints
- Double Action ankle control.
- Thermoformed with Poly Carr “C”.

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<td>AC-14</td>
<td>ELITE (ADD TO FREE MOTION ANKLE)</td>
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<tr>
<td></td>
<td>-A) Adjustable post stop</td>
</tr>
<tr>
<td></td>
<td>-B) Adjustable post stop with Dorsi-Assist</td>
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<tr>
<td>AC-15</td>
<td>BECKER MODEL #655 MOTION LIMITER</td>
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<td>BECKER MODEL #755 MOTION LIMITER</td>
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<tr>
<td>AC-17</td>
<td>PDC ANKLE JOINTS</td>
</tr>
</tbody>
</table>
KC-2-A OTS InterLock Joint
Modular design.
5 sizes available, child through adult.
Posterior and medial offsets available.
Lighter in weight and stronger than other designs.
IMAC Bail kit maintains alignment of locks.

KC-3 OTS StepLock Joint
Works like a ratchet.
Allows full extension, but prevents flexion.
Nine different locking positions (every 10 degrees).
Secure unlocked position.
5 sizes available.
Posterior and medial offsets available.

KC-5 Tricknee Joint (TK-1000) (Spring Assist)
Provides 25 degree spring action extension assist.
Drop lock slides for flexion release.
Spring action center of rotation is slightly anterior to anatomical knee center to allow a natural flexion moment at heel strike.

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### Knee Control Additions

#### KC-1 DROP LOCK
- A) Ball Bearing Lock Retainers (Pr)
- B) Becker #1002
- C) Becker #1002SS
- D) Becker #1012
- E) Credit Standard Joints
- F) OTS InterLock, straight or posterior offset

#### KC-2 BAIL LOCK
- A) OTS InterLock, straight or posterior offset
- B) Becker #1003
- C) Otto Bock #17K34
- D) Becker Bail/Dial #1007

#### KC-3 STEP LOCK

#### KC-4 DIAL LOCKS
- A) Pope Infant #049-576
- B) Becker #1006

#### KC-5 TRICKNEE (TK-1000)

#### KC-6 LERMAN JOINTS

#### KC-7 BECKER POLYCENTRIC KNEE JOINTS (1009)

#### KC-8 BECKER E-KNEE

#### KC-9 SPREADER BAR ON KAFOS
**Description**

*Leatherwork:*

All cuffs are copper riveted into the brace. Aluminum bands are covered with cream cow. Velcro closures are used unless instructed otherwise.

LW-1 Standard Leatherwork for AFO
Full circumference calf cuff. Velcro closure.

LW-2 Standard Leatherwork for KAFO

[Image of LW-1 and LW-2 braces]
| LW-1   | LEATHERWORK (Standard AFO)                        |
| LW-2   | LEATHERWORK (Standard KAFO)                       |
| LW-3   | THIGH CUFF & VELCRO CLOSURE  
            (With Leather Package) |
| LW-4   | FULL THIGH LACER  
            (With Leather Package) |
| LW-5   | FULL CIRCUMFERENCE CALF CUFF (2” Wide)            |
| LW-6   | FULL CIRCUMFERENCE CALF CUFF  
            (Greater Than 2” Wide) |
| LW-7   | LEATHER RECURVATUM STRAP                           |
| LW-8   | KNEE CAP (4 Pull Leather)                         |
| LW-9   | KNEE CAP (5 Pull Leather)                         |
| LW-10  | “T” STRAP                                          |
| LW-11  | “T” STRAP UNDER PLASTIC                            |
| LW-12  | BUCKLES AND LEATHER STRAPS  
            (No Velcro) |
| LW-13  | MOLDED LEATHER CALF LACER                          |
SM-1 SHOE MODIFICATIONS
- A) Stirrup Attached To Extra Shoe
- B) Extended Steel Shank
  (with stirrup attachment)
- C) Custom Length Solid Stirrup (over 11”)
- D) Crepe Buildup on Shoe (heel & sole)
  - 1) 1/2” Or Less
  - 2) Each Additional 1/2”
- E) Velcro Closure On Instep (riveted)
- F) Stirrup Transfer
- G) Split Stirrup (extra cost)
- H) Long Tongue Stirrup (USMC/Pope)
- I) Pelite Toe Filler
- J) Brace Attached To Shoe
- K) Credit Shoe Work
- L) Credit Shoe Work and Stirrup
- M) Scott Craig Stirrup Extension
### Various

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<td>Carbon Fiber Inserts (pr)</td>
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<tr>
<td></td>
<td>-1) Compcore</td>
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<td></td>
<td>-A) Labor Charge</td>
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<td>-2) Polycar-C Reinforcement (pair)</td>
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<td>-3) Body Jacket</td>
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<td>-C) Neon Colors (co-polymer)</td>
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<td>-2) KO/AFO</td>
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<td>AM-11</td>
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<td>AM-12</td>
<td>PTB Buttons (pr.)</td>
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| AM-13 | Separate Anterior Shell (extremities only)  
|       | -A) Drape Formed  
|       | -B) Vacuum Formed  
| AM-14 | Slider Hex Bars (positioning control)  
| AM-15 | Spring Lever For Ring Lock  
| AM-16 | Thin Tongue  
| AM-17 | Bending and Finishing Stainless Bars  
| AM-18 | Lever Release Kit Attached  
| AM-19 | Floor Reaction Modification  
| AM-20 | Polishing Uprights (Per Bar)  
| AM-21 | Custom Cut Aluminum Band on Metal Orthosis  
| AM-22 | Powdercoat on uprights  
|       | -A Powdercoat Uprights (KAFO)  
|       | -B Powdercoat Uprights (AFO)  
| AM-23 | Image transfer on plastic shell  
| AM-24 | Crepe heel post  

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CAST CHANGES

CC -A) Negative cast modification
CC -B) Negative cast wrap (for return shipping)
CC -C) Recast charge
CC -D) Short pipe charge (in pre-filled molds)
CC -E) Fiberglass cast seal
CC -F) Credit cast fill and modify
CC -G) Credit cast fill
CC -H) Credit cast modify

FOAM MODIFICATIONS

FM -A) Foam insert
FM -B) Foam on footplate
FM -C) Lumbar/thoracic pad
FM -D) Posterior foam
FM -E) Pelite insert at foot
FM -F) PPT insert
FM -G) Trilam insert

ADDITIONAL STRAPS

AS -A) Dacron backing on Velcro straps
    -1) Leather backing on Velcro straps
AS -B) Dorsal strap (no padding)
AS -C) Dorsal strap (padded)
AS -D) Extra Velcro straps
AS -E) Fuzzy, padded Velcro straps
AS -F) Patella pad and straps
AS -G) Straps attached to bars (ea.)
Unique Orthotic Components

Why Use OTS Orthotic Components?

Modularity:

OTS knee and ankle joints are interchangeable throughout each product line. The Original StepLock and InterLock share the same sizes and shapes, as do the 2400 Series and 2755 Series joints. The ankle joints all use the same double action stirrup head (except the DFA ankle).

Accessory Kits:

The Cable Release Kit can be added to any modular knee joint in the OTS lineup. The Bail Lock Kit can be added to any InterLock or UniLock modular knee joint across the product lineup. The Drill Fixture can be used to make uprights for any OTS modular knee or ankle joint, and the Alignment Fixture can be used to align any OTS knee or ankle joint, as well.

Reduced inventory:

Using the Drill Fixture to make your own uprights will pay for itself in scrap savings in no time at all. The 2400 Series bendable distals reduce the number of joint configurations to stock by two thirds. OTS thermoformable ankle joints use the same stirrups as the modular ankles. Minimize your inventory to maximize your profits.

Thin - Light - Strong:

OTS uses the latest CAD and CNC technology to provide close tolerances and structural integrity, while OTS lightweight alloy provides the strength you need at one third the weight of stainless steel.

Good looks:

Flowing lines and low profile design combine to provide a naturally attractive product. Electroless nickel plating on all OTS products protects from harsh environments and aids in smooth operation.

User satisfaction and confidence:

Every technician can take pride in his workmanship when he uses OTS joints to form a perfect fit, and the OTS "No Bull" three year warranty means that we will replace a part, no questions asked! OTS stands behind its products like no other manufacturer!
UNIQUE ORTHOTIC COMPONENTRY

800-221-4769
The StepLock is a ratcheting, multi-position knee joint designed with the flexion contracture patient in mind. It allows the patient to increase genu range of motion gradually with ten different positions. Simply flip the lever and the joint motion becomes free to allow for sitting and lying down positions. Flip the lever back down again and the mechanism blocks flexion while allowing free extension. StepLock is also ideal as a standing assist for patients with weak quads. StepLock features a bright nickel finish and is available in 5 different bar sizes and medial offsets.

<table>
<thead>
<tr>
<th>Joint pairs</th>
<th>3/16”x1/2”</th>
<th>3/16”x5/8”</th>
<th>1/4”x5/8”</th>
<th>3/16”x3/4”</th>
<th>1/4”x3/4”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Left medial offset</td>
<td>SL 512 KL</td>
<td>SL 516 KL</td>
<td>SL 616 KL</td>
<td>SL 519 KL</td>
<td>SL 619 KL</td>
</tr>
<tr>
<td>Double contour</td>
<td>SL 512 KB</td>
<td>SL 516 KB</td>
<td>SL 616 KB</td>
<td>SL 519 KB</td>
<td>SL 619 KB</td>
</tr>
<tr>
<td>Hip joints</td>
<td>SL 512 H</td>
<td>SL 516 H</td>
<td>SL 616 H</td>
<td>SL 519 H</td>
<td>SL 619 H</td>
</tr>
</tbody>
</table>
The posterior offset StepLock from OTS offers a unique combination of the traditional mechanical advantage of the posterior offset with the ratcheting action of StepLock. The offset hinge encourages the knee to extend while the 10° increment locks prevent flexion. Because the mechanical pivot point is placed posterior to the anatomical hinge, a greater amount of flexion is possible, a perfect feature for children who squat while playing. The threaded IMAC handle makes installing a cable release mechanism a snap! Order the posterior offset StepLock for your patient today!

<table>
<thead>
<tr>
<th>Joint pairs</th>
<th>3/16”x1/2”</th>
<th>3/16”x5/8”</th>
<th>1/4”x5/8”</th>
<th>3/16”x3/4”</th>
<th>1/4”x3/4”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Straight</td>
<td>SL 512 KS-PO</td>
<td>SL 516 KS-PO</td>
<td>SL 616 KS-PO</td>
<td>SL 519 KS-PO</td>
<td>SL 619 KS-PO</td>
</tr>
<tr>
<td>Left medial offset</td>
<td>SL 512 KL-PO</td>
<td>SL 516 KL-PO</td>
<td>SL 616 KL-PO</td>
<td>SL 519 KL-PO</td>
<td>SL 619 KL-PO</td>
</tr>
<tr>
<td>Double contour</td>
<td>SL 512 KB-PO</td>
<td>SL 516 KB-PO</td>
<td>SL 616 KB-PO</td>
<td>SL 519 KB-PO</td>
<td>SL 619 KB-PO</td>
</tr>
</tbody>
</table>
The InterLock is a drop lock alternative that is modular and features the IMAC (Interchangeable Multi-Actuated Control) system for the most release options of any knee joint, anywhere. Available in five sizes, including medial offsets, the InterLock is a more positive lock than the traditional drop lock. And with so many release options, you can reduce your inventory and increase your profitability. Next time your patient requires a drop lock, a bail lock, or a lever release lock, try the InterLock from OTS. You'll be glad you did.

<table>
<thead>
<tr>
<th>Joint pairs</th>
<th>3/16”x1/2”</th>
<th>3/16”x5/8”</th>
<th>1/4”x5/8”</th>
<th>3/16”x3/4”</th>
<th>1/4”x3/4”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Straight</td>
<td>IL 512 KS</td>
<td>IL 516 KS</td>
<td>IL 616 KS</td>
<td>IL 519 KS</td>
<td>IL 619 KS</td>
</tr>
<tr>
<td>Left medial offset</td>
<td>IL 512 KL</td>
<td>IL 516 KL</td>
<td>IL 616 KL</td>
<td>IL 519 KL</td>
<td>IL 619 KL</td>
</tr>
<tr>
<td>Double contour</td>
<td>IL 512 KB</td>
<td>IL 516 KB</td>
<td>IL 616 KB</td>
<td>IL 519 KB</td>
<td>IL 619 KB</td>
</tr>
<tr>
<td>Hip joints</td>
<td>IL 512 H</td>
<td>IL 516 H</td>
<td>IL 616 H</td>
<td>IL 519 H</td>
<td>IL 619 H</td>
</tr>
</tbody>
</table>

See page 55 for LRK and Bail kit ordering details.

www.ots-corp.com
The posterior offset InterLock offers the same benefits as the standard InterLock, but with the advantage of placing the mechanical pivot point behind the anatomical pivot point, assisting the knee into flexion. Because of the posterior position of the pivot point, the InterLock also has an increased range of motion, especially helpful in patients who need the ability to squat fully down. InterLock is the only spring-loaded bail lock available with a posterior offset and the only one available in a child’s size. With all of the features of the InterLock at your disposal, you don’t need another knee joint. InterLock has it all!

<table>
<thead>
<tr>
<th>Joint pairs</th>
<th>3/16”x1/2”</th>
<th>3/16”x5/8”</th>
<th>1/4”x5/8”</th>
<th>3/16”x3/4”</th>
<th>1/4”x3/4”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Straight</td>
<td>IL 512 KS-PO</td>
<td>IL 516 KS-PO</td>
<td>IL 616 KS-PO</td>
<td>IL 519 KS-PO</td>
<td>IL 619 KS-PO</td>
</tr>
<tr>
<td>Left medial offset</td>
<td>IL 512 KL-PO</td>
<td>IL 516 KL-PO</td>
<td>IL 616 KL-PO</td>
<td>IL 519 KL-PO</td>
<td>IL 619 KL-PO</td>
</tr>
<tr>
<td>Right medial offset</td>
<td>IL 512 KR-PO</td>
<td>IL 516 KR-PO</td>
<td>IL 616 KR-PO</td>
<td>IL 519 KR-PO</td>
<td>IL 619 KR-PO</td>
</tr>
<tr>
<td>Double contour</td>
<td>IL 512 KB-PO</td>
<td>IL 516 KB-PO</td>
<td>IL 616 KB-PO</td>
<td>IL 519 KB-PO</td>
<td>IL 619 KB-PO</td>
</tr>
</tbody>
</table>
2400 Series Design Features

♦ New low profile lines give the 2400 series less weight and a sleeker appearance.

♦ Sold without uprights attached allowing you to make your own bars with the new OTS drill fixture (page 49).

♦ Available in single position full extension UniLock, ratcheting StepLock, or adjustable stop free-motion functions.

♦ Available in all four popular sizes including the new large size 8, which comes with stainless steel upright and distal.

♦ Notched neck on distal for easy to bend custom medial/lateral contours, and fewer parts to stock.

♦ Designed for use on traditional metal, leather, or thermoplastic orthoses.

♦ Built-in lock retaining feature in both minimal or posterior offset.

♦ Unparalleled strength to weight ratio with OTS alloy.

♦ Compatible with all OTS release mechanisms including lever and bail* release kits (page 55).

*not available for StepLock
Size 8
2400 Series Joint

- Size 8 2400 series joints come with stainless steel proximal and distal attached for superior strength and ease of fabrication.

- Available in posterior offset with either ratcheting StepLock, or single position full extension UniLock functions.

- It is compatible with all OTS release mechanisms (page 55).

- Built-in lock retaining feature.

- Designed for traditional thermoplastics or available with a lamination kit for composite laminations (page 51).

- Sleek lines and OTS alloy give the size 8 2400 series joint exceptional strength while retaining lighter weight than traditional cast steel parts of the same size.

<table>
<thead>
<tr>
<th>2400 Series Joint Pairs</th>
<th>Size 5</th>
<th>Size 6</th>
<th>Size 7</th>
<th>Size 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>UniLock Minimal Offset</td>
<td>2400</td>
<td>2400</td>
<td>2400</td>
<td>NA</td>
</tr>
<tr>
<td>(UL)</td>
<td>ULMO5K</td>
<td>ULMO6K</td>
<td>ULMO7K</td>
<td>NA</td>
</tr>
<tr>
<td>UniLock Posterior Offset</td>
<td>2400</td>
<td>2400</td>
<td>2400</td>
<td>2400</td>
</tr>
<tr>
<td>(UL)</td>
<td>ULPO5K</td>
<td>ULPO6K</td>
<td>ULPO7K</td>
<td>ULPO8K</td>
</tr>
<tr>
<td>StepLock Minimal Offset</td>
<td>2400</td>
<td>2400</td>
<td>2400</td>
<td>NA</td>
</tr>
<tr>
<td>(SL)</td>
<td>SLMO5K</td>
<td>SLMO6K</td>
<td>SLMO7K</td>
<td>NA</td>
</tr>
<tr>
<td>StepLock Posterior Offset</td>
<td>2400</td>
<td>2400</td>
<td>2400</td>
<td>NA</td>
</tr>
<tr>
<td>(SL)</td>
<td>SLPO5K</td>
<td>SLPO6K</td>
<td>SLPO7K</td>
<td>NA</td>
</tr>
<tr>
<td>Free Motion Knee</td>
<td>2400</td>
<td>2400</td>
<td>2400</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>FM5K</td>
<td>FM6K</td>
<td>FM7K</td>
<td>NA</td>
</tr>
<tr>
<td>Hips Minimal Offset</td>
<td>2400</td>
<td>2400</td>
<td>2400</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>MO5H</td>
<td>MO6H</td>
<td>MO7H</td>
<td>NA</td>
</tr>
<tr>
<td>Reverse StepLock</td>
<td>2400</td>
<td>2400</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>R-SLMO5</td>
<td>R-SLMO6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
OTS now has an external alignment fixture that fits all of our joints, including our new 2400 and 2755 series, for accurate consistent set-up every time.

### 2400 Series

**Pre-Bent Posterior Offset Distal**

with 10° medial contour

<table>
<thead>
<tr>
<th>Pre-Bent Distals</th>
<th>Size 5</th>
<th>Size 6</th>
<th>Size 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>UniLock Minimal Offset (UL MO)</td>
<td>2400 ULMO5-CK</td>
<td>2400 ULMO6-CK</td>
<td>2400 ULMO7-CK</td>
</tr>
<tr>
<td>UniLock Posterior Offset (UL PO)</td>
<td>2400 ULPO5-CK</td>
<td>2400 ULPO6-CK</td>
<td>2400 ULPO7-CK</td>
</tr>
<tr>
<td>StepLock Minimal Offset (SL MO)</td>
<td>2400 SLMO5-CK</td>
<td>2400 SLMO6-CK</td>
<td>2400 SLMO7-CK</td>
</tr>
<tr>
<td>StepLock Posterior Offset (SL PO)</td>
<td>2400 SLPO5-CK</td>
<td>2400 SLPO6-CK</td>
<td>2400 SLPO7-CK</td>
</tr>
</tbody>
</table>

Although distals are notched for easy custom bending, OTS does offer pre-bent distal pairs with a 10° contour.

### 2400 Bar Kits

<table>
<thead>
<tr>
<th>5mm 4pc Bar Kit</th>
<th>Size 5</th>
<th>Size 6</th>
<th>Size 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>2400 Bar Kit 5</td>
<td>2400 Bar Kit 5</td>
<td>2400 Bar Kit 6</td>
<td>2400 Bar Kit 7</td>
</tr>
</tbody>
</table>

**2400 Series** joints use a 5mm (3/16”) thick bar that is available in a four piece kit. Size 8 2400 joints come with stainless steel upright and distal attached.
The OTS drill fixture allows you to cut and drill only the material you need, saving you time, money and material. You can even take scrap or broken bars from previous fabrication and turn them into new usable uprights.

**Drill Fixture Features**
- Comes with spot drill and drill/counter-sink combo bits for precise and accurate holes every time.
- Drills and countersinks all of our bar combinations, knee and ankle.

**Step 1**
Slide bar into appropriate slot and spot or mark hole alignment with drill bit.

**Step 2**
Punch through and countersink in one step with drill/counter-sink combo bit.

**Step 3**
You’re done! Clean off your new uprights and attach them to any OTS joint.

<table>
<thead>
<tr>
<th>DRILL FIXTURE</th>
<th>PART #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drill Fixture and Bits</td>
<td>2400DF</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BAR STOCK</th>
<th>3/16” X 1/2” 5mm X 12mm</th>
<th>3/16” X 5/8” 5mm X 16mm</th>
<th>3/16” X 3/4” 5mm X 19mm</th>
<th>1/4” X 5/8” 6mm X 16mm</th>
<th>1/4” X 3/4” 6mm X 19mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 Ft length Bar Stock</td>
<td>BARSTOCK 512</td>
<td>BARSTOCK 516</td>
<td>BARSTOCK 519</td>
<td>BARSTOCK 616</td>
<td>BARSTOCK 619</td>
</tr>
</tbody>
</table>

**SAVE $ MAKE YOUR OWN BARS!**
2755 SERIES

- 2755 Kits are engineered for all types of composite lamination techniques including, wet laminations, infused resin transfers, and Pre-Preg carbon fiber sheets.

- Kits comes complete with everything you will need from cast preparation to finished product.

- New low profile lines combined with OTS alloy technology give the 2755 series joints extremely high strength characteristics while still retaining necessary low weight.

- Available in ratcheting StepLock, single position full extension UniLock, and adjustable extension stop free-motion functions.

- Available in posterior or minimal offset joint configurations.

- Easy to bend stainless distal for custom medial/ lateral contours.

- Teflon tape included in kit for removing bars for easy finishing.

- Built-in lock retaining feature.

- Compatible with all OTS release mechanisms* (page 55).

<table>
<thead>
<tr>
<th>2755 Series Kits</th>
<th>Size 5</th>
<th>Size 6</th>
<th>Size 7</th>
<th>Size 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>UniLock Minimal Offset (UL) (MO)</td>
<td>2755 ULMO5K</td>
<td>2755 ULMO6K</td>
<td>2755 ULMO7K</td>
<td>NA</td>
</tr>
<tr>
<td>UniLock Posterior Offset (UL) (PO)</td>
<td>2755 ULPO5K</td>
<td>2755 ULPO6K</td>
<td>2755 ULPO7K</td>
<td>2755 ULPO8K</td>
</tr>
<tr>
<td>StepLock Minimal Offset (SL) (MO)</td>
<td>2755 SLMO5K</td>
<td>2755 SLMO6K</td>
<td>2755 SLMO7K</td>
<td>NA</td>
</tr>
<tr>
<td>StepLock Posterior Offset (SL) (PO)</td>
<td>2755 SLPO5K</td>
<td>2755 SLPO6K</td>
<td>2755 SLPO7K</td>
<td>NA</td>
</tr>
<tr>
<td>Free Motion</td>
<td>2755 FM5K</td>
<td>2755 FM6K</td>
<td>2755 FM7K</td>
<td>NA</td>
</tr>
<tr>
<td>Reverse StepLock</td>
<td>2755 R-SLMO5</td>
<td>2755 R-SLMO6</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>
Reverse StepLock Kit Features

Kit comes complete with one Reverse StepLock joint and one Free Motion joint, with bars.

Available in sizes 5 and 6 for upper extremity applications.

Available in both 2400 and 2755 Series.

Specify left or right elbow; the StepLock joint is on the lateral side with palm up.

Order as follows: 2400 or 2755, R-SLMO 5 or 6, L or R-KT.
Adjustable Range of Motion:

Why use a limited motion ankle joint when you can have unlimited adjustability? The Integrated Ankle ARM has two adjustment screws, one to limit plantar-flexion and another to limit dorsi-flexion. Because it uses a double action stirrup you don’t need to keep a third type of stirrup in inventory. It’s like a double action without the springs. Set it to range of motion, lock it up in position or change between the two. Don’t settle for limited motion when you can have unlimited motion!

Dorsi-Flexion Assist:

Does your patient need a spring-loaded dorsi-flexion assist? The Integrated Ankle DFA may be the right choice. It’s a low profile, lightweight alternative to a modular system but retains all the power of a true spring-loaded ankle. Because it’s thermoformable, all the extra bulk and weight of traditional uprights are eliminated, leaving just the part you need. The ankle joint! Install the Integrated Ankle DFA on your next orthosis. You’ll be glad you did.

Double Action:

A truly versatile ankle joint, the Double Action Integrated Ankle is our most popular model. It has the ability to spring load the posterior channel providing dynamic assist for dorsi-flexion, just like the DFA, but it also has a stop built into the anterior allowing for a dorsi stop. Have you ever needed to spring load for plantar assist? Neither have we; that’s why we eliminated the anterior channel and made our DA even lighter and lower in profile. And like the other thermoformables it also features the same lightweight alloy construction and includes all mounting hardware, stirrups and alignment fixture.
Adjustable Range of Motion:
Are you tired of grinding stirrups on limited motion ankle joints, only to find that it’s not even close when you actually have to fit the patient? Eliminate that problem with the Integrated Ankle Adjustable Range of Motion ankle joints. Because it has anterior and posterior adjustment screws, you can simply and quickly adjust the range of motion right on the patient at time of fitting. It’s easy to lock up motion and then increase ROM as the patient progresses. And, because it uses a double action stirrup head, you can cut the number of stirrups you need in half, along with your inventory costs. Why settle for a nonadjustable limited motion joint when you can have strength and adjustability? Try our Integrated Ankle ARM and get the best of both worlds.

Double Action:
The OTS Integrated Ankle, Modular Style ankle joint is the only ankle joint manufactured to accept a 3/4” upright. No more tapering down the upright to 5/8” and ruining the sidebar strength. The Double Action offers spring-loaded dorsi-assist combined with an infinitely adjustable dorsi-flexion stop. All modular style Integrated Ankles will accept both the solid stirrup for attachment to a shoe or the split tail stirrups for attachment to an NYUCB shoe insert. The bright nickel plated finish enhances not just the looks but also it’s functionality due to it’s protective ability and natural lubricity. Available in 1/2” (12mm), 5/8” (16mm) and 3/4” (19mm) widths to accommodate all sizes of uprights. The right choice is easy. Order Integrated Ankle.

<table>
<thead>
<tr>
<th>Joint pairs</th>
<th>5 12mm slot (1/2” slot)</th>
<th>6 16mm slot (5/8” slot)</th>
<th>7 19mm slot (3/4” slot)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Double Action</td>
<td>IA12</td>
<td>IA16</td>
<td>IA19</td>
</tr>
<tr>
<td>Adjustable Range of Motion</td>
<td>IA12ARM</td>
<td>IA16ARM</td>
<td>IA19ARM</td>
</tr>
<tr>
<td>Double Action Square Slot</td>
<td>IA12-EU</td>
<td>IA16-EU</td>
<td>IA19-EU</td>
</tr>
<tr>
<td>Adjustable Range of Motion Square Bar</td>
<td>IA12ARM-EU</td>
<td>IA16ARM-EU</td>
<td>IA19ARM-EU</td>
</tr>
</tbody>
</table>

Modular, Steel

<table>
<thead>
<tr>
<th>Joint pairs</th>
<th>5 12mm slot (1/2” slot)</th>
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<th>7 19mm slot (3/4” slot)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Double Action</td>
<td>IA12 AL</td>
<td>IA16 AL</td>
<td>IA19 AL</td>
</tr>
<tr>
<td>Adjustable Range of Motion</td>
<td>IA12ARM AL</td>
<td>IA16ARM AL</td>
<td>IA19ARM AL</td>
</tr>
<tr>
<td>Double Action Square Bar</td>
<td>IA12 AL-EU</td>
<td>IA16 AL-EU</td>
<td>IA19 AL-EU</td>
</tr>
<tr>
<td>Adjustable Range of Motion Square Bar</td>
<td>IA12ARM AL-EU</td>
<td>IA16ARM AL-EU</td>
<td>IA19ARM AL-EU</td>
</tr>
</tbody>
</table>

All OTS modular ankles now available with square bar slots for use with bar stock and the Drill fixture pg 49

800-221-4769
**Split Tail Stirrups**

OTS now offers the popular stirrup design known as “Split-tail”. The unique “Y” shape of the Split-tail is perfectly suited for use in plastic NYUCB shoe insert configurations. These stirrups are available in DA/ARM and DFA head configurations and in Child, Youth and Adult sizes. Stirrup leg length can be ground shorter to fine tune fit.

<table>
<thead>
<tr>
<th>Split tail Pairs</th>
<th>Child (small)</th>
<th>Youth (medium)</th>
<th>Adult (large)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Double Action</td>
<td>IARCHDAST</td>
<td>IARYTHDAST</td>
<td>IARADDAST</td>
</tr>
</tbody>
</table>

**Solid Stirrups**

Our solid stirrups come in many sizes but only one head configuration. Since our DA ankle joints and our AROM ankle joints both use the same style head (reducing your overall inventory) the only thing left for you to select is the size. Select either Adult or Child thickness and then choose length. It’s that easy.

<table>
<thead>
<tr>
<th>Solid stirrup Wide tongue</th>
<th>Child (small)</th>
<th>Adult (large)</th>
</tr>
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<tbody>
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<tr>
<td>STWTDA 6.5-CH</td>
<td></td>
<td>STWTDA 8.75</td>
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<td>STWTDA 7.25-CH</td>
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<td>STWTDA 9.5</td>
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<td>STWTDA 8-CH</td>
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<td>STWTDA 10.25</td>
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<td>STWTDA 11</td>
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</table>
Ankle Lamination Kits
Lamination kits, packaged for your convenience. In each kit you’ll get: one pair of ankle joints, one pair of uprights, stirrups, alignment rod and dummy plates. Try our Lamination Kits. They’re complete, easy to order and economical.

<table>
<thead>
<tr>
<th>Kits</th>
<th>Child (small)</th>
<th>Youth (medium)</th>
<th>Adult (large)</th>
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<tbody>
<tr>
<td>Alloy</td>
<td>IA12-AL-LK 1/2&quot; BAR SLOT</td>
<td>IA16-AL-LK 5/8&quot; BAR SLOT</td>
<td>IA19-AL-LK 3/4&quot; BAR SLOT</td>
</tr>
<tr>
<td>Steel</td>
<td>IA12-LK 1/2&quot; BAR SLOT</td>
<td>IA16-LK 5/8&quot; BAR SLOT</td>
<td>IA19-LK 3/4&quot; BAR SLOT</td>
</tr>
</tbody>
</table>

The IMAC Lever Release Kit (LRK) provides a remotely operated unlocking mechanism that connects the medial and lateral joints, making it easier to lock and unlock any spring-loaded joint. Easy to fabricate and strong, the LRK is perfect for use on both the Interlock and StepLock knee joints.

(Order Small LRK 512sm)
(Order Large LRK 16/19lg)

Do you need to convert your standard InterLock into a bail lock? This easy to fabricate kit has all that you need to convert the InterLock’s function from a drop lock to a bail lock. Just contour the steel rod to shape and screw it on. The compression fitting keeps the bail tight until you decide to remove it. It’s that simple.

(Order IBK)

800-221-4769
Understanding Infrared

First, it is important to understand that hot objects do not radiate heat. They radiate electromagnetic waves, that when absorbed by a surface, result in it heating up. Example: On a cold day you step out and face the sun. Your face heats up, but your back stays cool. If the sun were radiating heat, it would have heated up the air before you stepped into it. Electromagnetic radiation can pass through space without heating it. That is why outer space is so cold even though it is actually closer to the sun. It is only when electromagnetic waves hit an object and are absorbed that they transform into the heat that we can feel. We can’t feel the electromagnetic waves, but we can feel the heat that they produce.

What are electromagnetic waves?

All materials are made up of atoms that are constantly in motion. As energy is absorbed by an object the motion of its atoms is increased. The temperature of an object is directly proportional to the vibration of its atoms*. The more they vibrate, the hotter they get. Atoms contain protons and electrons which are electrically charged particles. These particles create an electric field around themselves, and when they move it creates a magnetic field. The atoms of a hot object vibrate frantically. As these atoms move, the electric and magnetic fields that are created by the charged particles are disrupted. This disruptance is called an electromagnetic wave (not unlike the waves in a pond). Objects that are hot are radiating electromagnetic waves. When these waves reach a cool object, the electric and magnetic fields of the electromagnetic wave will pull on the charged particles of the cool objects atoms and cause them to vibrate. The more they vibrate, the hotter they will get. The atoms of the cool object absorb the energy of the electromagnetic wave created by a hot object some distance away.

The Electromagnetic Spectrum

Electromagnetic waves are like other waves in that they are described by their velocity, frequency and wavelength but are different in that they don’t need a medium in which to travel. Ocean waves need water & sound waves need atmosphere, but electromagnetic waves can travel through the vacuum of space. Visible light, microwaves, radio waves, X-rays and infrared are all different types of electromagnetic waves. They all travel at the same velocity commonly referred to the “speed of light”. The only way in which they differ from each other is in the length and frequency of their waves. The electromagnetic spectrum is divided up into many different frequencies with many different wavelengths. The infrared band is bordered on one side by visible light and on the other by microwaves and is defined as the area between .72 and 1000 microns. There are three parts to the infrared band. Near IR is defined as the area between .72 and 1.5 microns, middle IR is between 1.5 and 5.6 microns and far IR is 5.6 to 1000 microns. A micron is the measurement used gauge wave lengths and is equivalent to 1/1,000,000 of a meter or about 0.00004 inches (the average human hair is about 50 microns in diameter).

Absorption Curves

All energy is either absorbed, transmitted or radiated when it hits an object and all materials have absorption curves which show what wavelengths the material will best absorb. To find out what frequency and wavelength of infrared radiation we want our heater to output, we need to establish the absorption curve of the material we want to heat. In orthotics and prosthetics we require our heater to cook Poly-olefin type plastics. The absorption curve indicates that the carbon/hydrogen bond of most plastics breaks in the middle IR range (at about 3.5 microns). Ideally, we would like our heater to output most of it’s energy in this area so it’s important to select an infrared emitter that does this. The wavelength can also be fine tuned with the proper controller. A digital controller can regulate the wavelength so well that it’s accurate within +/- 2° of the set temperature.

* Absolute zero (-460°F & -273°C) is the temperature when all atomic vibration stops.
PDQ INFRARED OVENS

800-221-4769
A Rollabout model is an excellent solution for heating large sheets of plastic for hip spicas, AFOs, or check sockets. There are 4 different sizes to meet every thermoforming need, and each features a hydraulic assisted height adjustable tray for easy operation.

The tray includes a fitted Teflon cover, is mounted on casters, and can be rolled to your vacuum area. No more burnt arms or trying to find a place to set down your hot plastic.

**Standard Features:**
- Stainless Steel Construction
- 650 watt infrared emitters (1000 watt on 8E)
- Interior light
- Double pane viewing window
- Programmable digital temperature controller
- Tray includes a fitted Teflon cover
- Full 1 year warranty

**Rollabout Models**

**Interior Dimensions:**
- 5/A - 38” wide x 31” deep x 18” high
- 6/B - 36” wide x 51” deep x 18” high
- 7/C - 48” wide x 51” deep x 18” high
- 8/E - 60” wide x 48” deep x 18” high

**Exterior Dimensions:**
- 5/A - 49” wide x 35” deep x 48” high
- 6/B - 47” wide x 55” deep x 48” high
- 7/C - 59” wide x 55” deep x 48” high
- 8/E - 70” wide x 52” deep x 48” high

**Electrical Requirements:**
- 220 volt, single phase
The BT-1 PDQ Oven incorporates all the infrared efficiency of our full size ovens without the full size cost. Their smaller size also makes them more versatile for smaller labs.

If you need an oven for a branch office or if you’re thinking of buying a used oven not intended for O&P, one of the BT ovens may be right for you. The smaller interior dimensions of the BT-1 is intended for flat plastic only.

**Standard Features:**

- Stainless Steel Construction
- Four 650 watt infrared emitters
- Interior light
- Double pane viewing window
- Programmable digital temperature controller
- Tray with a fitted Teflon cover
- Weight (uncrated) 150 lbs.
- Full 1 year warranty

**Interior Dimensions:**
38” wide x 30” deep x 6” high

**Exterior Dimensions:**
42” wide x 43” deep x 20” high (44” high with legs)

**Electrical Requirements:**
220 volt, 20 amp, single phase
OTS has developed a new oven capable of bubble forming and heating sheet plastic while taking up a minimal amount of floor space. The BT-3 Infrared Oven is big enough to heat most of your KAFO sheet plastic and has enough drop for even the biggest check socket, but it only takes up a corner of space in your lab.

It features a bank of lights on the top as well as on the bottom providing efficient and even heating of bubble forming plastics. The BT-3 is truly the best of both worlds with its small size and large capacity.

**Standard Features:**
- Stainless Steel Construction
- Four 650 watt emitters on top and four 650 watt emitters on bottom
- Interior light
- Two double pane viewing windows
- Programmable digital temperature controller
- Fitted Teflon sheet for tray
- Full 1 year warranty

**Specs**

**Interior Dimensions:**
28” wide x 40” deep x 24” high (18” clearance for bubble forming)

**Exterior Dimensions:**
32” wide x 49” deep x 61” high

**Electrical Requirements:**
220 volt, 30 amp, single phase
Our premier oven, the PO-2 is designed to out perform every other oven. It features banks of lights above and below for the quickest and most even heating of either sheet plastic or thick bubble forming plastic.

It’s also easy to use. No need to raise or lower the tray height to switch between sheet plastic and bubble plastic and it rolls out to where ever your vacuum pump is. Buy the best; Buy a PO-2.

Standard Features:

✓ Stainless Steel Construction
✓ Four 1000 watt infrared emitters on top and four 1000 watt emitters on bottom
✓ Interior light
✓ Two double pane viewing windows
✓ Programmable digital temperature controller
✓ Fitted Teflon sheet for tray
✓ Rollabout tray/rack
✓ Full 1 year warranty

PO-2

Interior Dimensions:
50” wide x 36” deep x 20” high

Exterior Dimensions:
60” wide x 40” deep x 53” high

Electrical Requirements:
220 volt, 50 amp, single phase
The new portable mini-mobile oven is the answer to all of your off-site visits for low temperature thermo-forming. The mini mobile comes with wheels and extending handle to make transporting easy. Simply plug into any standard 110V outlet and thermoform up to 170° right on site!

Standard Features:

- Light; weighing less than 30lbs
- Heats up to 170° F
- Exterior dimensions 29” X 31.5” X 5”
- Interior Dimensions 26” X 26”
- Easy to transport with wheels and handle.

(Shown with optional accessory bag)
Need more room for larger plastics; the Maxi-Mobile is your answer. Still portable but with more room than the Mini-Mobile oven the Maxi-Mobile can tackle your largest off-site low temperature thermoforming needs.

Standard Features:

- Larger interior dimensions 26” X 38”
- Exterior Dimensions 40” X 31.5” X 5”
- Portable with wheels and handle
- Plugs into standard 110V outlets
- Heats up to 170° F
- Weighs less than 40lbs
PDQ Powdercoating System

We call it “Paint with an Attitude”! The PDQ Powdercoating System is the ultimate coating system. Not only does it add color, it also provides chemical and corrosion protection to the surface to which it’s applied. Available in every color in the rainbow, and some that aren’t, including textured coatings. It’s also easy to use! Simply clean and degrease the part, spray it with powder and bake it for ten minutes. It’s that simple. With hundreds of uses, you’ll find it an invaluable tool in your lab. Comes with Gloss Black powder to get you coating immediately. All you need is an air compressor with a regulator and an oven. **(Order SUPGUNKIT)**

PDQ Bubble Forming Frame
The PDQ Bubble Forming Frame was designed by four prominent prosthetists and manufactured to work best in the PDQ Infrared Ovens. The round hole was chosen to reduce plastic stretch at the corners and increase platen contact. Four easy to use spring clips hold the plastic in place and will accommodate any thickness of plastic. The bottom of the frame is made wider to facilitate handling and supports the frame inside PDQ Benchtop ovens. Available in five sizes. **(Order BFF {9”,12”,16”,18”,24”)** BT-3 ovens require special frames; please add BT-3 to end of part number.
PDQ Plastic Rack
Do you have sheet plastic stacked in corners and against the wall? Can’t find the right color or size because all of your plastic is in piles? Is it getting damaged in this environment? The PDQ Plastic Rack stores all of your sheet plastic in an orderly manner while protecting it from harm. Available in two sizes, 30”h x 52”w x 32”d or 44”d. (Order RACKSMALL {small}, RACKLARGE {large})

PDQ Mold Library
Get your casts up off the floor and into the PDQ Mold Library! Whether it’s a child’s AFO cast or a behemoth body jacket, our specially made rack will protect it from the harm that can come from it sitting on the floor. Keep your molds neat and orderly. Store them in a PDQ Mold Library. 84”h x 36”w x 16”d. (Order MOLDLIBRARY)

PDQ Oven Gloves
These terry cloth gloves are the ultimate thermo-forming gloves! They’re thick enough to protect your hands from the heat of the plastic and long enough to protect your forearms too. Don’t burn you hands and arms! Use our gloves and beat the heat! (Order SUPGLOVE)

800-221-4769
The ROTOLAM is the first rotating vacuum platform for orthotic and prosthetic laminations. The ROTOLAM will fit in any of our vacuum platforms and rotate without losing vacuum or twisting the PVA bags. The stacked ring structure serves two purposes. First it serves as a large smooth surface for easy vacuum on the outer bag, and second the space inside the rings holds all the extra lay-up material off of critical vacuum surfaces. Dual valves, one from the vacuum platform and one from the secondary valve, give complete control to the fabricator by allowing independent vacuum for both inner and outer bags from the same vacuum pump. The ROTOLAM is welded steel with a tough powder-coat finish, and comes with applicable valve and barb. The unique design features of the ROTOLAM take many inconsistencies out of wet or dry laminations.

Our FO Platform is a vacuum press for thermoforming foot orthotics. It fits into any of our vertical vacuum platforms, and rotates while under vacuum for superior control. The FO Platform combines several design features to achieve quicker vacuum with less force all while maintaining the ability to rotate under vacuum. The small air space created by having the seal point below the mould allows for faster vacuum, and the frame with the rubber sheet holds itself closed over the platform to eliminate bulky latching mechanisms. The FO Platform is welded steel with a powder-coat finish, and a aluminum tray for corrosion resistance.

Our platforms are designed to fit into any of our vertical vacuum mounts and bubble form prosthetic check sockets. Just like our other vertical vacuum attachments these platforms will rotate while under vacuum giving the fabricator the ability to work on all sides while thermoforming. They come in three sizes; our AK platform is 12" in diameter, our BK platform is 8" in diameter, and our upper extremity platform is 4" in diameter. All of them are welded steel with a powder-coat finish.

Our bubble frames are made from solid aluminum and come in matching pairs. They work with the platforms to eliminate excess plastic waste, and can be purchased in a kit with their matching platform. The AK frames are 18" X 20" with a 14" hole, our BK frames are 14" X 16" with a 10" hole, and our upper extremity frames are 10" X 12" with a 6" hole.
Vacuum Platforms and Modifying Fixtures

The DX-1000 is a dual mount vacuum vise, with two independently operated chambers. Welded steel construction includes a horizontal chamber with vise handle, and a vertical chamber with custom rotating vacuum attachments. If you’re looking to maximize production in minimal space the DX-100 is the answer. With independent valves and compact design, one standard pump can easily service four chambers, or two DX-1000s. The horizontal chambers vise handle makes pulling even complex anterior shells easy. Flutes at the end of the chamber prevent blockage of the vacuum with the cast. The DX-1000’s unique vertical chamber is made to fabricate check sockets with its platform attachments, laminated sockets with the ROTOLAM, and foot orthotics with the FO Platform. Bubble frames and platforms are available in three sizes AK, BK, and Upper extremity, and can be purchased separately, or in a kit. Whether you are starting a new practice, updating your old one, or just in need of more production out of the same space the DX-1000 is your solution.

The VM-1000 is a vise mounted vertical vacuum chamber that accepts any Leonard Industries vacuum attachment. It is made of welded steel and powder-coated for protection. It comes with valve and barb.

The TM-1000 is our table mounted vertical vacuum chamber that mounts to any table adding another work station to any small space. The TM-1000 accepts all rotating vacuum attachments, and comes with valve barb and installation hardware.

The X-500 is the little brother to the DX-1000. The X-500 is a non-vacuum horizontal vise with welded brackets, specifically designed and tested for the orthotic and prosthetic industry. The X-500 can handle your biggest projects. With welded brackets, weight is evenly distributed to a large area, allowing you to modify even large TLSO’s with ease. The wide mouth of the X-500 accommodates most jig attachments. Simple strong construction guarantees years of hassle-free performance, even with the extreme conditions of a plaster room. With a compact 12” X 6” size, you can fill a table up, or squeeze one in anywhere. Mounting hardware included.

800-221-4769