

ARTech Laboratory, Inc.
Requirements - Checklist - Upper Extremities

BE or AE Myo & I-Limbs

- _____ Plaster model of “sound” side, with fingers in the relaxed/natural position that the patient wants.
Model should be made 3 to 4 inches above the styloid.
- _____ Electronic Hand & **production glove it came with. Wrist Rotator?**
- _____ Measurements filled out on Work Order (from shortest point on socket to tip of the thumb.)
- _____ Color choices filled out on Work Order
- _____ Color-true photos by CD or e-mail, taken on the ARTech Color Chart background. If sending prints, please circle areas on photos that most closely match the patient’s skin tones. We need a photo of the dorsal side, palmer side and a close up of the fingernails ***without polish***. Please refer to “Photograph Policy” in the information package. We need photos of the arm as well as the hand. **New photos even for 2nd models.**
- _____ Three to four weeks after we’ve received the models we will need the socket so we can apply the “skin” and join it to the hand.

BE or AE Passives

- _____ Plaster mold of “sound” side with fingers relaxed/natural in the position that the patient wants.
Model should be made 4 to 5 inches past the styloid.
- _____ Socket with inner hand or paddle (2” wide, 3” long, ¾” thick is best) attached.
- _____ Measurements on BE’s from shortest or lowest point on socket opening to the tip of the thumb.
- _____ Color choices filled out on the Work Order
- _____ Color-true photos by CD or e-mail photos, taken on ARTech Color Chart background. If sending prints, please circle areas on photos that most closely match the patient’s skin tones. We need photos of the arms as well as the dorsal side and palmer side, and a close up of the fingernails (without polish). A photo of both hands, palms together with elbows together on a flat surface will help us with questions of finger length.
(Please refer to “Photographic Policy” in the information package.) **New photos even for 2nd models.**

Partial and Total Hands

- _____ **Dental stone** model of “affected” side. Model should be made 3 to 4 inches above the styloid.

Wrist Straight.

- _____ Plaster model of “sound” side **with fingers in the relaxed/natural position that the patient wants the finished prosthesis to be in.** Model should be made 3 or 4 inches past the styloid, or as long as the prosthesis is to be made. **If missing digit is a thumb, please have patient hold the hand in the alginate in the “opposition” position, both the sound side and the affected side. Fitting a thumb is a difficult process.**
- _____ Measurements filled out on Work Order
- _____ Color choices filled out on Work Order
- _____ Color-true photos taken on ARTech color background by email or CD. Photo prints should be compared to the patient and areas that most closely match circled. We need a good dorsal and palmer view and a close-up of the fingernails without polish. A photo of both hands, palms together with elbows together on a flat surface will help us with questions of finger length. **New photos even for 2nd models.**

- _____ **We need to know if any residual digits are fixed or if there is some movement left.**

Fingers

_____ Dental stone model of “affected” side. Model should be made at least to mid-palm.
_____ Plaster model of “sound” side. Model should be made at least to mid-palm. Depending on length of residual, **the fingers should be in the relaxed/natural position.**

_____ ***If thumb is included, models need to be of entire hand, past the wrist.***

_____ Measurements filled out on Work Order

_____ Draw a line on the Work Order where the patient wants the “trim line” to be.

_____ Color choices filled out on Work Order

_____ Color-true photos taken on ARTech color background by email or CD. If prints, compare to patient’s skin tones and circle the areas that most closely match. We need a good dorsal and palmer view and a close-up of the nails ***without polish***. A photo of both hands, palms together with elbows together on a flat surface will help us with questions of finger length. **New photos even for 2nd models.**

ARTech Laboratory, Inc.
Checklist
Lower Extremities

Feet

_____ Dental stone model of “affected” side, taken in the weight bearing position with the leg vertical. Model should be made 3 to 4 inches above ankle.

_____ Plaster model of “sound” side, taken in the weight bearing position with the leg vertical. Model should be made 2 to 3 inches above the ankle. ***Also, tracing of sound side, even if it is a BK or AK.***

_____ Measurements filled out on Work Order

_____ **Shoe size a and pair of shoes that patients want to wear – foot shell should be two sizes smaller.**

_____ **Indicate if the toes are to be split to allow for wearing sandals.**

_____ Color choices filled out on Work Order – ***Mandatory on “Standard” Feet***

_____ Smallest shoes that patient would like to wear

_____ Color-true photos taken on the ARTech background by email or CD. If prints, compare to patient’s skin tones and circle the areas that most closely match. We need both a top and bottom view, both sides, and a close up of the nails. **New photos even for 2nd models.**

_____ Please, note any additional information, like sensitive spots, rigid sole, etc. on the Work Order and model.

BK’s and AK’s

_____ Plaster model of “sound” foot, 3 to 4 inches above the ankle, and taken in the weight bearing position.

_____ Socket with foam sculpted to match shape of patient’s leg. We do not have foam shaping tools, nor

do we know the shape of the patient’s leg.

_____ Indicate if toes are to be split to allow for wearing sandals.

_____ Measurements filled out on Work Order

_____ Color choices filled out on Work Order. **New photos even for 2nd models.**

_____ Color-true photos taken on the ARTech Color Chart background by email or CD. If prints, compare to patient's skin tones and circle the areas that most closely match. We need a view from all angles and a close up of the nails without polish. Please include photos of the upper leg also, especially if it is an AK.

If patient has had a prosthesis previously, it would be helpful to us to have it, or at least a photo of it. They usually want the new prosthesis to look similar to the one they are using now unless there is some problem with the current one.

We do not need a lot of photos that are different colors. One or two prints of each angle, if they are color-true, will be sufficient.

It is not necessary to return the color chart with the models. We have the same ones here to refer to.

When fabricating sockets, please try to duplicate the patient's sound side measurements as closely as possible and allow for 2mm thickness of silicone skin.

The very best way to ship stone models is to wrap them (after drying) in a bubble wrap and put them in a box filled with packing peanuts. We get them with less breakage this way than any other.

ARTech Laboratory, Inc.
Ear Checklist

- 1 Be sure to take photographs before casting.
- 1 With the patient sitting upright, take close-up photos of both sides from a direct side view. For orientation purposes be sure that the camera is level. Take front view photos of the left and right sides independently. Also take a back view photos of the left and right sides. Take more photos at various angles and distances with the photo background held adjacent to the ear.
- 1 Be sure ear plug is well below the opening of the ear canal after it expands, but still visible for easy removal.

- 1 Please mark true/absolute North, 0 degree axis on the impression of both the sound and affected models.

Nose Checklist

- 1 Take close up photos of both sides of the face at 90 degree, at 45 degrees and a direct frontal view with the color background held against the skin. For orientation purposes please be sure the camera is level. We will need photos before the amputation.
- 1 It is important to have a good impression of a 5-6 diameter area around the nose for correct orientation. The upper lip should be included in the impression.
- 1 Allow the stone to completely dry before shipping.

If patient has had a prosthesis previously, it would be helpful to us to have it, or at least a photo of it. They usually want the new prosthesis to look similar to the one they are using now unless there is some problem with the current one.

We do not need a lot of photos that are different colors. One or two prints of each angle, if they are color-true, will be sufficient.

It is not necessary to return the color chart with the models. We have the same ones here to refer to

The very best way to ship stone models is to wrap them (after drying) in a bubble wrap and put them in a box filled with packing peanuts. We get them with less breakage this way than any other.

Important Tips

Creating a prosthesis long distance without seeing the patient has always been difficult. Regardless we want to provide the best possible product for your patient- the first time. We will continue trying to improve the process. In order to do this, accurate information is critical.

Beginning January 1, 2018 it has become necessary to charge a small fee when we receive **silicone models that aren't poured in plaster and stone**. Besides the time and material, it takes for us to do this, we have no way of knowing if the models are accurate or not, especially if no measurements are filled in on our Work Order. We receive quite a few models this way that are not accurate. The practitioner does not know whether they are accurate or not if they are not poured and compared to his/her patient in the office.

For “fingers” we need the impressions taken at least through mid-palm, although the total hand would be best, (both the sound side and the affected side), with the fingers held in the position that they want them sculpted. The extra length is needed for fixation in our molds. This is most important when the patient has a long residual digit which may not allow for a wire insert for pose-ability. If the prosthesis is for a thumb then we will need an impression of the total hand, 2-3 inches past the wrist in the event that a strap needs to go around the palm for retention. The thumb on both the sound and affected sides (if possible) need to be in the “**opposition position**” if they want to use the thumb for opposition when holding things. **The silicone must be ¼ inches thick all the way around in order to prevent collapsing in transit and becoming distorted.**

We sculpt over the impression of the “affected side”, so this is critical especially for a thumb since the skin on the palm and around the thumb base is not smooth. This is also true for situations where the thumb remains and other digits are missing. **Function vs cosmetics should be a conversation between practitioner and patient. This will determine the flex, trim line and position of fingers.** After some reduction in size, we sculpt a mirror image of the “sound” side right over the residual model of the “affected” side that we receive from you. **Both the “sound” side and the “affected” side should be held in the desired position while impressions are being made**, whether in alginate or with silicone.

It sounds easy to request that the flex of a finger be adjusted a few degrees, but this entails quite a detailed process for us – and modifications require some degree “guess work”, which can translate into the prosthesis not fitting as well as we would like. Changing the flex requires four different process and is quite time consuming.

We understand the convenience and ease of using the two part silicone impression materials. However, we have had many more re-makes for fitting issues since this has become widely used. There are some precautions that can help keep these impressions accurate.

Use Vaseline or some other type separator lubricant over the skin on areas that will be covered with the silicone. This helps in removal of the silicone without distorting the detail. The silicone needs to be at least ¼ inches thick all the way around, especially on the wrist and arm. Don't remove the silicone until it is fully cured, approximately 20 minutes at least. Wrap the silicone in plaster bandage, being careful not to collapse or distort the impression. Having this protective shell will protect it from collapsing during transit and help keep the proper shape when we pour it in stone.

Alginate impressions (in the weight bearing position – both sound and affected sides) are best for feet. **Plaster bandage models do not give accurate measurements, nor is there any detail for sculpting.** If soft cloth is inside the plaster bandage, then they are totally un-useable. We need the impressions taken 3-4 inches above the ankle, again for fixation in our mold. **We offer “standard” feet as a service for people who have Medicare and Medicaid. We loose money on every “standard” foot we make. For this reason, we cannot remake a “standard” foot for color alone. Please complete the color choice section on our Work Order. We will match that color with adjustments made from any color-true photos (taken on our background sheet) we receive.**

When using alginate for impressions we've found that the thicker you make the mixture (like oatmeal only pour-able), the better impression you get. Don't use a drill or wisk to mix the alginate. It will create air bubbles on the surface of the stone models.

We put a lot of thought into the information requested on our new “specific” Work Orders. The information requested is very beneficial to us in the fabrication of the prosthesis. It should eliminate some of the guess work we've been doing in the past. It is our attempt to give you the best prosthesis “the first time” without having to return it for fitting or color issues. That is frustrating for you, your patient and us.

Impressions need to be longer than just the area being restored. This allows us the extra length needed for fixation in our molds.

Impressions for **hands and partial hands** need to be as long as the patient wants the trim line to be, plus 3-4 inches for fixation. The wrist needs to be held straight and not bent from side to side or backwards or forwards. If we must make the alterations, it is just guess work as to the correct size and shape.

ARTech Laboratory, Inc.

Photograph Policy

The most common source of frustration for you, your patients and us is the frequent color corrections needed due to inaccurate photos and color selections on the ARTech Work Orders. Along with fully completing all information on the Work Order, the following information should remedy most of this problem.

Rather than photos by e-mail, or even those sent on CDs, we would like prints approved and initialed by the patient. Most of your offices have a digital camera already. A decent color printer is only around \$100.00. Photos could be taken, printed, and then compared to the patient's skin tone while they are present in the office. There is usually a CVS or Walgreens drug store close to all locations. Digital photos could be printed out in a matter of minutes while the patient waits at your location. The other alternative would be to send the patient to a professional photographer, who will be responsible for providing accurate photos which the patient has approved, in writing, as acceptable in color. The added expense of the professional photographer might be insignificant to the patient when compared to the expense of returning the prosthesis to ARTech for correction, not to mention the inconvenience for you and your patient. Regardless as to who takes the photo, true color is the most important factor.

In the future, ARTech can only guarantee a color match if we are provided with patient approved photo prints for our artists to match. This requirement will remove much of the guesswork for you and us. However, you and your patient must understand that the skin color of most people changes, sometimes dramatically, throughout the day due to temperature, medications taken, even after eating certain foods, not to mention tanning from the sun or lightening from lack of sun. Because of this, matching the photo does not necessarily mean that the prosthesis will always match the patient exactly. As an example, have the patient hold one hand above their head for ten seconds, then compare it with the other hand.

We need photos of both the "sound" side and the affected side if an "affected" side is possible. We need to match the transition of the skin to the prosthesis. Sometimes the color on the affected side is slightly different.

Ideally the photos should be made on our color chart background so the color can be adjusted if the artist has any questions. For hands, we need a dorsal view, a palmar view and a close of the fingernails without polish. Also a photo of hands placed palms together (praying hands) with elbows resting evenly on a flat surface, from all four angles. This will help us determine finger length & wrist position, if there is any question. For feet, we need both top and bottom and a close of the nails without polish. Take one photo after the patient has been sitting for 20 minutes and another after they have walked around for two or three minutes. This will also demonstrate how your foot changes color. For feet and toes, a photo of both feet, heels against a wall, will help with length. Ears and nose photos are a little more difficult. Hold the color chart with the closest matching colors next to the patient's amputation and take photos from both sides and head on for the nose and from both sides for an ear. We do not recommend photos be taken outside or under fluorescent lights. Photos taken with a flash in a room with a window is best. Take some photos close and some about four to five feet away with a zoom lens. Please angle the camera in such a way that there is no glare on the photo background and fill up the frame with the subject instead of taking them from a distance. We need to see as much detail

as possible.

After the photo has been printed, hold it next to the patient's skin and circle the closest match. One or two prints from different distances, positions and angles will be sufficient if the color is correct.

We will accept digital photos if taken on our color background. We now have a new photo program that allows us to adjust colors if the photos are on our color background sheet. We have had better success with this method than previously.

Model Policy

In our fabrication process, the model of the amputation site is modified to create the most intimate fit possible with the highest degree of flexibility our silicone offers. **Therefore, the socket will have the exact position as the model sent. If the fingers on the model are too extended or flexed, the prosthesis will be also. Impressions for fingers should be casted through mid-palm. The best position for a passive hand or finger is the shape when holding a tennis ball. Hand and feet impressions should be casted approximately four to five inches past the desired trim line. The best position for a myo is when holding an egg. Foot models need to be in the weight bearing condition with leg vertical, making sure foot is not touching the sides of the container the alginate is in. Foot impressions should be made four to five inches above the desired trim line.** Making shape adjustments to prostheses which have already been molded has cost us a large amount of time and money, but more importantly, it eliminates our ability to keep a timely schedule for all our clients. **If your patient has had a previous prosthesis and would like the new one to be exact or very similar, please send along the old prosthesis for the sculpting process.**

Our success in achieving the satisfactory fit of any prosthesis depends greatly on the model position and accuracy. Please pour your impression while the patient is still at your facility so you can check for accuracy and quality. We can no longer begin fabrication for a prosthesis if the models are not adequate. Also, it is essential that the affected side models (BK and AK prostheses should have an accurate tracing) are poured in hard stone such as dental stone (9,000 psi min). Our molding process requires a stone denser than lab plaster. If we are required to use a model of lab plaster, there will be an additional fee for model duplication added to the invoice. The sound side model may be out of lab plaster, since it is used mainly as a model for sculpting.

Please see "How to Work With ARTech", printed on the back of our color chart or printed separately in the information package sent to you, for more detailed instructions in making the cast. Refer to the "Checklist" for the specific things we need for each type prostheses.

Work Order Profile

It will help us, and eliminate some re-makes, if you will mark on the work order where you want the trim line. Or, you may mark on the actual stone model where the trim line should

be. Sometimes it is obvious, but sometimes it is not. This will save us from having to “guess” the length.

ARTech Laboratory

Amputee Restoration Technologies

309 W. Avenue F

Midlothian, Texas 76065

Office 1-888-775-5501

Fax 1-972-775-2000

Work Order - AK or BK

Patient Profile

Prosthetic Company _____

Proth. Phone _____

Practitioner _____

Notes and Special Requirements _____

Patient Name _____

Description of amputation _____

Description of prosthesis(ae myo) _____

P.O. # _____

Practitioner' Signature _____ Date _____

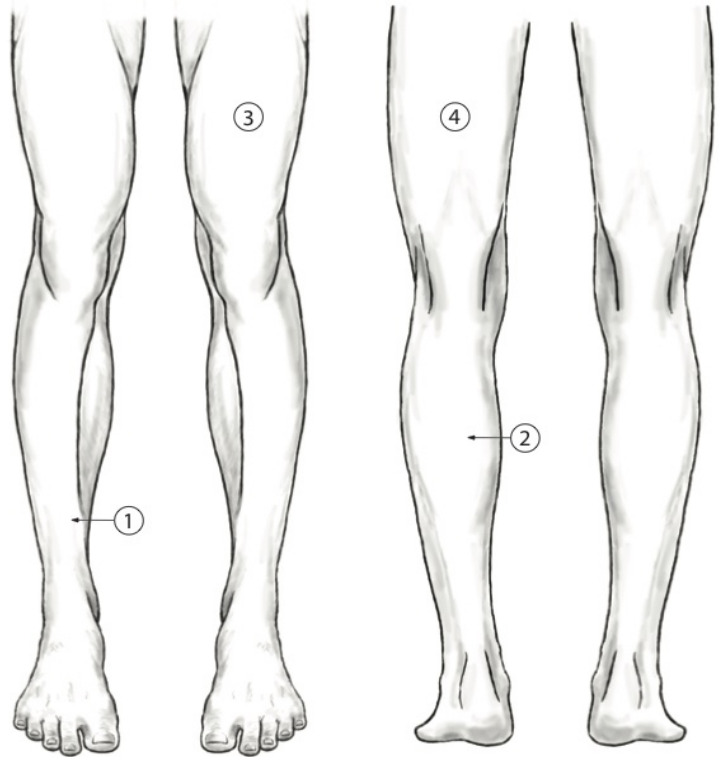
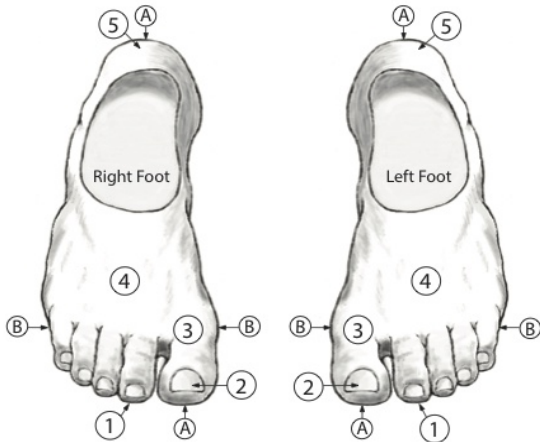
Please complete all applicable profile/ diagram specifications and send this work order along with required models, photos, special instructions, etc.

Feet Colors

1. _____ (Toe Tip, darkest color)
2. _____ (Toe Nail, darkest color)
3. _____ (MTP, darkest color)
4. _____ (Dorsal, average color)
5. _____ (Heel, darkest color)

Measurements

- A. _____ mm(length)
B. _____ mm(width)



Leg Colors

1. _____ (Shin, average color)
2. _____ (Back of Calf, average color)
3. _____ (Front of Thigh, average color)
4. _____ (Back of Thigh, average color)