CASSIT

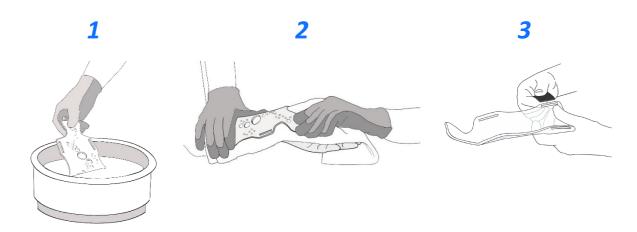
User Manual For Expert

RA-10-0xx(xx)

info@Cassit-OT.com

Cassit Splint Customization

Instruction, Warnings and Recommendations





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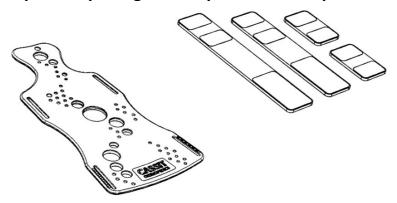


MedNet GmbH Borkstrasse 10, 48163 Muenster, Germany





1. Open the package and separate the straps from the splint.

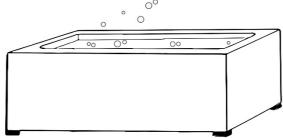


2. **Protect your hands** with a thick towel or heat resistant gloves. If you don't have gloves, a thick towel can be used to replace the gloves. Use tongs anytime the splint is near the water. Do not insert the splint directly into the tub or pull it out without them.

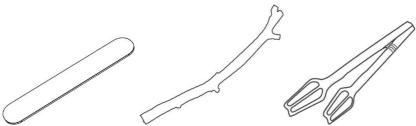


3. **Use a large pot with boiling water**: Heat water to a boil in a Tub/pot with a diameter slightly larger than the splint's length. If you do not have a tub /pot big enough, you can bend the splint several times.

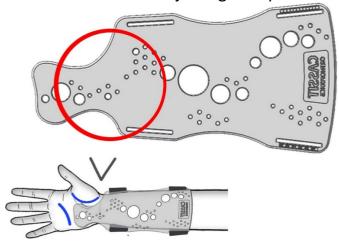
The water must be boiling and bubbling.



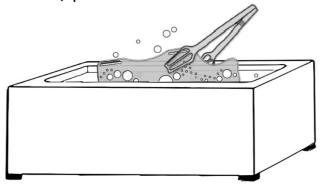
4. **Prepared a heat resistant accessory** / wood stick that will help retrieving the splint from the pot when the water is boiling.



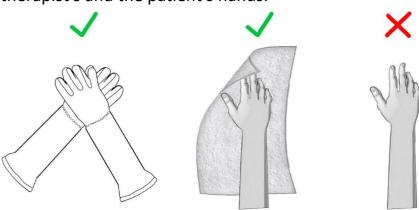
5. Identify the wrist area or narrowest bending area on the splint to adjust the location of the splint on the patient's hand later. Follow the curves of the palm and the hand when adjusting the splint.



6. **Softening**: Once the water is boiling / reach 100 degrees, place the flat splint into the tub/ pot.



- 7. **Check** occasionally that the splint does not stick to the bottom of the Tub/ pot during heating, by moving it with an accessory.
- 8. **Protect your patient**: While the splint is inside the boiling water, take a <u>dry thick towel</u> and place it over the patient's limb, to cover the area where you will bend the splint. Do not customize the splint without a thick, dry towel to protect the therapist's and the patient's hands.

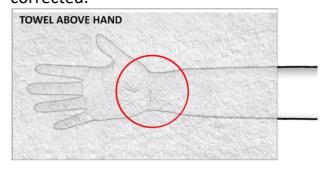




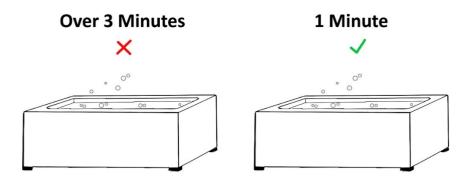
9. **Avoid burns**: Note! If the towel is wet or too thin it is not good enough to prevent a burn, and you should use another towel. Make sure that the tub position is far enough from patient, that you have free and organized working environment, and the patient is seated and his/her hand is stabilized on desk + towel. If a burn is created, the adjustment process must be stopped, take care of the burn and find an alternative treatment. Do not customize the splint without a thick, dry towel.



10. **Identify the wrist** or narrowest bending area and the direction of bending before you start the customization. If the patient's hand is very painful (for instance, as a result of trauma), the splint can be bent in the air and only checked on the patient's hand or bent over the hand of a similarly sized person and then corrected.

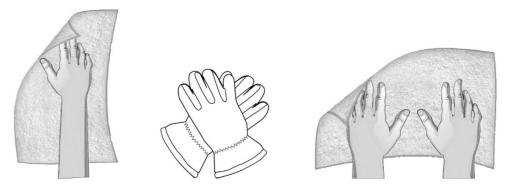


11. If the water is boiling, after approximately 50 seconds the splint should be soft and suitable for customization, pay attention not to leave the splint for a long time in the water. Make sure that during heating the splint, the slots for the straps remain open.

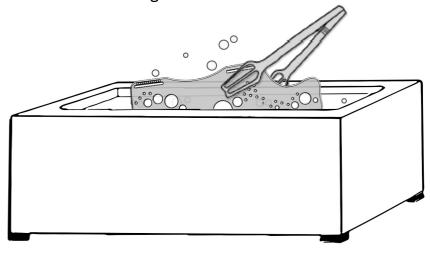




12. Warning: Note! before the adjustment make sure that your hands and the hands of your patient padded with a thick towel or heat resistant gloves.

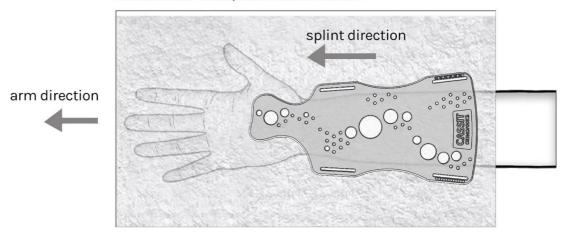


- 13. **Important**: Before you start the customization pay special attention: during the bending the patient might suffer from the heat and/or from distress and/or needs a break for any reason, then stop immediately and wait until he could proceed.
- 14. **Using tongs, remove the splint from the tub / pot** carefully using an accessory, allow the remaining water to trickle down.

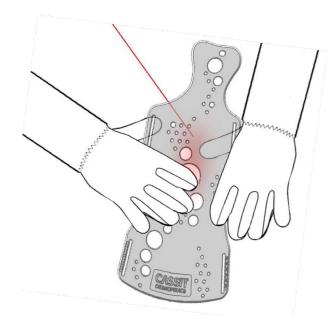


15. **Identify the bending direction** of the splint and place it on the patient's hand. Make sure the towel separates between the hand and the hot splint.

TOWEL ABOVE HAND, SPLINT ABOVE TOWEL

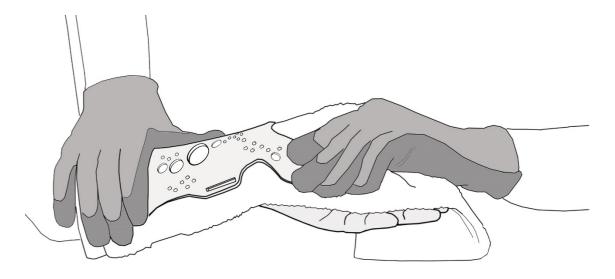


- 16. **Bending should be done quickly**: Working time from softening to hardening is about 40 seconds.
- 17. If the splint is not soft enough and you feel strong resistance, or if you see white areas accrue on the splint surface while bending, please place it back into the **boiling water** for another minute for more softening. Make sure that the water is boiling. Do not apply unreasonable pressure to bend the splint.

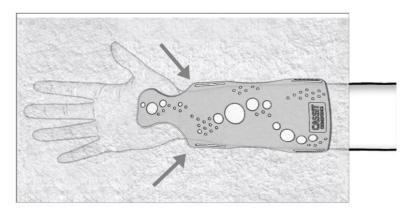


18. Bend the splint according to the patient's hand curves and hold it until it is almost hard. At this point your patient might feel it is too hot, please check and ask him/her if he/she is well. Always make sure there is no contact between the patient's skin and the hot splint.

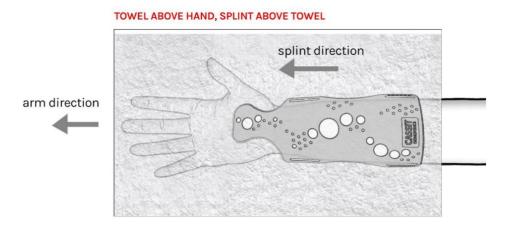




19. Pay attention to leave a small space for the straps between the splint and the wrist or narrowest bending area, it shouldn't be too tight next to the strap slots. Make sure there is no pressure on the bones.

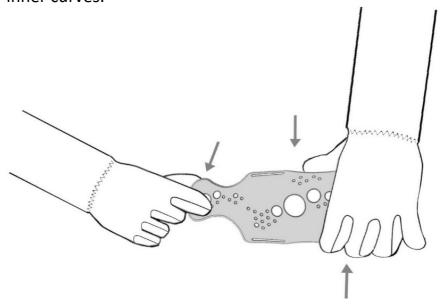


- 20. Pay attentions not to close the strap slots when customizing.
- 21. Alignment: Make sure that the splint's angle aligned to the patient's limb.

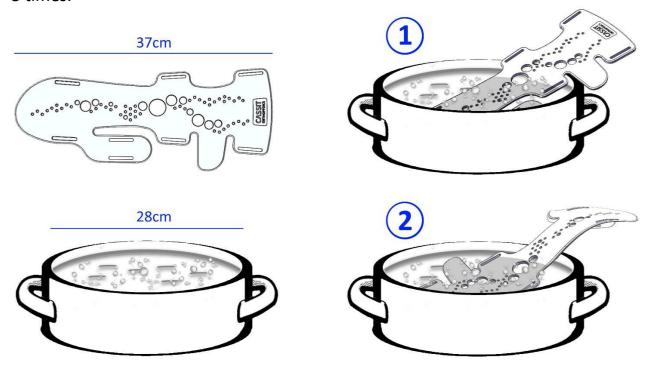




22. **Hardening**: After bending the splint it is recommended to hold the splint in the air and bent it slightly / hold the shape for 10 seconds until full hardening. You may want to make changes in the splint top to make it continues with the palm inner curves.



23. **Re-heating**: If the tub / pot are too small, the splint can be heated and bent several times: first the top and then the bottom. You can re-heat the splint up to 5 times.



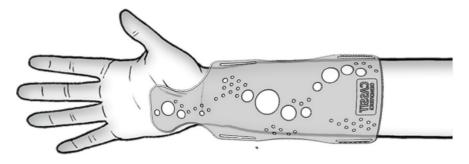
24. **Correction**: If the customization is not to your satisfaction, you can put the whole

splint back into the water, straighten and bend it back again.

25. **Cooling**: Wait a few minutes or wash a few seconds under cold water until the splint is not hot.



26. **Checking**: After you make sure that the splint is not hot, dry it and check the adjustment over the patient's hand without the towel. Due to the Transparency of the splint - changes in skin color can be seen, pay attention to detect areas where pressure point might occur and check your adjustment to see any wrong fixation areas.

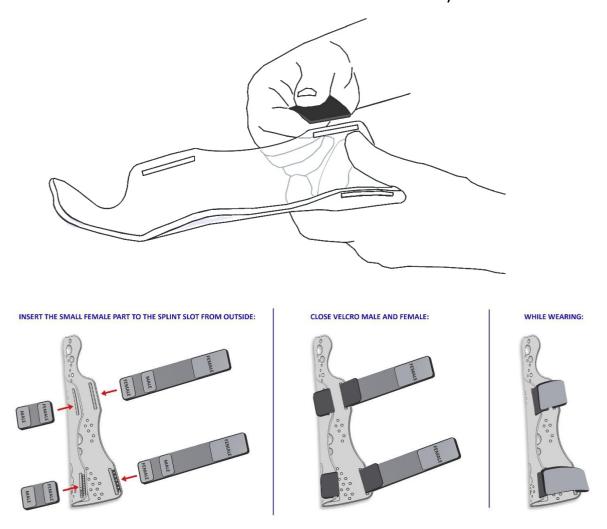


27. **Proceed or repeat**: If you are satisfied, you can stop boiling the water and proceed to the next section. If not, repeat paragraphs 5-26.

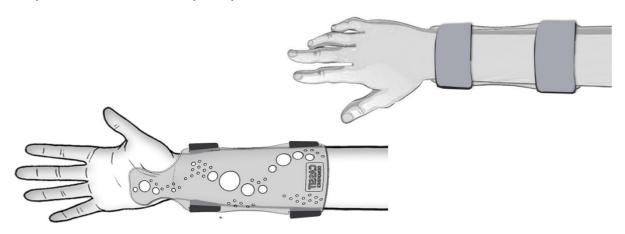




28. **Insert the straps** to the splint's straps slots according to the following drawing. Note the male Velcro should not touch the skin under any circumstances.



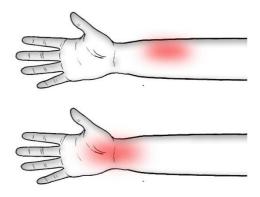
29. Attach and check the splint with the straps on the patient's hand. Check convenience, redness, pay attention to complaints of pain. Make sure that the splint is well fitted to your patient.



- 30. **Important Warning to avoid pressure sores!** For any patient and especially for patients with paralyzed hands or mental/ cognitive disabilities, people with communication difficulties or for children, <u>wait a few minutes with them while they are wearing the splint</u>, then remove it and check for signs of early pressure points. Fix the customization of the splint if needed.
- 31. For amendments to specific locations on the splint: When your hands are protected, first remove the splint from the patient and then remove the straps. Slowly pour boiling water on a specific spot, or hold the splint above hot steams until it's softened. In case you have a blower, you may use it with a 30 cm distance from the splint and disperse the warm air over a larger area rather than one point, to prevent vesicles.



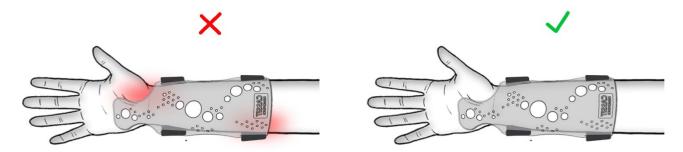
- 32. **Heating temperature**: You will know that the splint is soft enough to shape when the plastic is gently starting to move while you are heating it, but not trying to bend it. The splint will not bend in a temperature lower than 95 degrees.
- 33. **Warning: Skin irritation**: During all phases of work watch on your patient hands, his/her skin might be particularly s ensitive to heat, in this case make sure that you may proceed.



34. **Warning**: **Unexpected Behavior**: While working near boiling water pay extra attention particularly for children, or people with cognitive disabilities and/or unexpected behavior.



35. **Optimal adjustment**: pay attention after the splint's customization that the matching to the limb is the best it can be. Check that there are no areas where a pain or pressure sores can be formed.



36. **Instruct your patient** how to use the splint, how often, what he/her must watch out from (warnings), and what to do in case of pain or any question. Explain to the patient and his caregiver the benefits of using the splint – better functioning / healing / protecting the limb or preserving its motor skills. Explain maintenance: the parts of the splint allow for easy separation and easy cleaning of the splint.

For example:

FREQUENCY OF USE,	INICTOLICTIONS	NAVINITENIANICE AND	CONTACT DETAILS
FREQUENCY OF USE.	INSTRUCTIONS.	IVIAIN I ENANCE ANL	J CONTACT DETAILS:

Use the Splint for: 2	hours, once/ twice a day	<u>/ a week / overnight / other</u> .		
Insert the straps fro	m outside inside, do not le	et the hook touch the skin.		
Wash with cool water only. With any change of limb condition contact				
me, Name:	Phone:	and follow up.		

- 37. After some time of using the splint, the patient's hand anatomy will change, and the splint will not fit him. Explain that the parts of the splint allow for easy separation and re-adjustment several times so that the splint can be expanded and re-sized, remolded, aligned, bent, changed to new straps and more.
- 38. **Contraindication**: Do not to put the splint on an open wound.
- 39. With any aggravation in the limb condition, instruct your patient to remove the splint and approach the nearest clinic.
- 40. Explain the use of the splint again, how to wear it, when to wear it and the frequency of using it. Teach your patient and its caregiver how to insert the straps and answer their questions. Explain to your patient that he/she can



shower with the splint and how to clean it (separate and clean with cool water only).

- Warning to explain to your patient: If you feel pain, if there is redness or any irritation on your skin while using the splint, please stop using the splint and contact your practitioner/therapist.
- Warning to explain to the Caregiver/ Family member: Give special attention if your patient can not clearly express pain, or cannot feel pain due to a limb paralysis or decreased sensation. Patients who are not able to express pain might be: children, people with full or partial limbs paralysis, people with mental or cognitive disabilities, people with language difficulties, people who do not speak and more.
- 41. **Follow-up**: We strongly recommend that you follow-up your patient to make sure he/she is using the splint to his/her satisfaction and without difficulty.
- 42. Reuse: If the patient's hand size changes due to rapid growth, swelling or contraction, or if the range of motion improved, the splint can be remolded, extended or narrowed for that patient. It is not recommended to transfer the splint from one patient to another. The splint can be bent up to 5 times. The straps should be replaced more frequently.
- 43. **Recycle**: The plastic part of the splint should remain in good condition for at least five years. After the splint is deprecated, you can separate the straps and put the plastic part in a suitable recycle container.

Comments:

- A. In case of fractures, the intended use of the wrist or finger splints is for fixing simple and nondisplaced fractures only, and not intended for a complex / displaced/ open fracture.
- B. Prepare your work environment. It should include boiling water in a safe water tub or bath, a thick dry towel, heat resistant gloves, tongs and the chosen splint kit. Heat the water in the tub to 100° c / 212°f. Make sure the workspace is safe for both the patient and the practitioner, and do not leave the tub unattended.
- C. If the patient is a child / cannot express or feel pain / with unexpected behavior / cannot stabilize the hand / unconscious, be more careful, and if necessary,



- request help from the patient's caregiver or from other medical professional. Pay extra attention to the patient's skin color make sure that there are no signs of pressure points or discomfort.
- D. Explain the process to your patient that you are going to customize them a splint, and how it will be used by them and benefit them.
- E. If the patient cannot be brought to the tub area, a first adjustment can be made on the caregiver's or practitioner's hand, and hot-air-repairs can be made near the patient's bed.
- F. The correct splint must be selected, therefore in case of lack of the right splint type or size, If the patient's condition allows for a delay it's possible to place an order from a local inventory, or of its' urgent use a similar size splint or another type of fixation.
- G. In case of a patient with a high muscle tone / the patient moves unexpectedly / cannot sit firmly, it is recommended to ask for help from another medical professional / the patient's caregiver.
- H. In the event of an emergency it is possible to make not a perfect adjustment as long as it does not produce pressure points or harm the limb, and as long as it is beneficial to the patient, and instruct the patient to return to the clinic the next day for a better customization + doctor's checkup.
- Warning: This product should be used only according to physician instructions, only customized by a professional authorized to do so, and all accompanying treatment guidelines should be followed.
- J. **Warning:** After the customization, do not use or store the splint near heat or open flame, and/or boiling water.
- **K.** Caution: For single patient use only.



Symbols

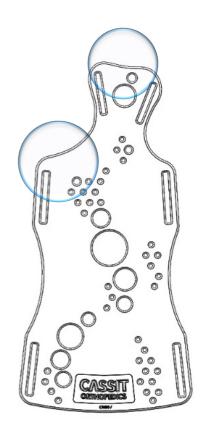
	Manufacturer: Cassit Orthopedics Ltd.	
2	Single Patient Use	
REF	Catalogue Number	
LOT	Lot Number	
C€	CE Mark	
1	Quantity	
EC REP	Authorized representative	
(i	Consult instructions for use	

CUSTOMIZATION HIGHLIGHTS AND CONTRAINDICATIONS FOR

Functional Adult Strong / Light / Child Kit

CN 10017, 10015, 10011, 10012

- Make sure to bend the top edge of the splint below the proximal transverse skin crease of the palm to allow maximal comfort inside the palm
- The radial line (the line at the base of the thumb - the trapezium bone) must be below the base of the thumb to allow free movement of the thumb
- The top part of the splint must be below the proximal transverse skin crease of the palm to allow free finger movement



CUSTOMIZATION HIGHLIGHTS AND CONTRAINDICATIONS FOR Finger Kit

CN 10031,10032, 10033, 10034

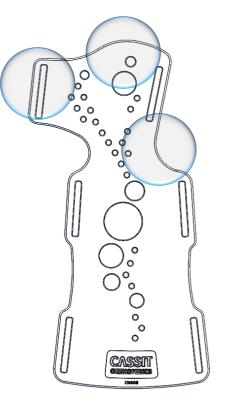
- Choose the right length for the finger
- If there is a decrease in the palm of the palm, be careful about the adjustment process and keep the insulation in the other fingers
- The angle between the long section and the short section should be 40-50 degrees
- Keep the strap slots open





CUSTOMIZATION HIGHLIGHTS AND CONTRAINDICATIONS FOR **CP Kit** CN 10023, 10025

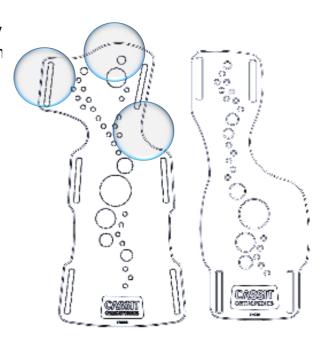
- The splint should be bent in the medial area of the palm to prevent ulnar deviation.
- The entire head of the splint should be bent to fit the curves inside the palm.
- The edge of the splint should be rounded at the MP bending line of the palm (Proximal transverse skin crease or palm)
- The top of the splint must be below the finger line
- The radial line (the line at the base of the thumb - the trapezium bone) must be below the base of the thumb to allow free movement of the thumb



CUSTOMIZATION HIGHLIGHTS AND CONTRAINDICATIONS FOR Short Arm Fracture Teen/ Adult Kit CN 10103, 10105



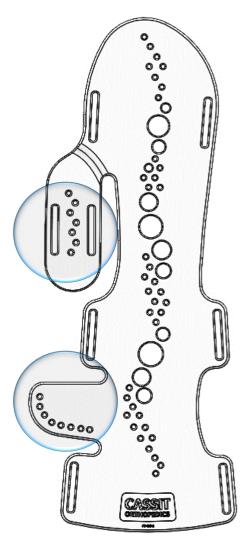
- The two parts must be bent separately - first the palmary part (CP splint), then the dorsal part.
- Be sensitive to the patient's pain
- Before adjusting the splint, all urgent injuries such as wounds must be treated. Do not bend the splint on an open wound.



CUSTOMIZATION HIGHLIGHTS AND CONTRAINDICATIONS FOR **Rest Child/Teen/Adult Kit** CN 10002, 10003, 10005



- This splint allows for complete fixation to all MP and IP joints of the hand and wrist
- Working Steps: first bend the forearm area, then the wrist area, and finally the fingers and thumb areas
- If necessary, it is possible to adjust on yourself first
- The thumb area is thinner, and it is recommended to bend it slightly around the thumb
- The support in the middle part of the forearm (in sizes Teen, Adult) aims to act as a splint let for the forearm to allow the splint to be worn independently while using one hand
- When bending the splint's thumb area make sure that the angle between the thumb and palm is not too large and that no pressure is created when wearing the splint
- At the end of the customization, make sure that the hand is well rested in an optimal position and that your patient has maximal comfort without pressure points.



Wide Peripheral Strap Kit CN 10106

- This strap is used as an additional support above the splint, and is used without inserting to the strap slots.
- Please pay attention that the hook (the harder part of the strap) does not touch the patient's skin.

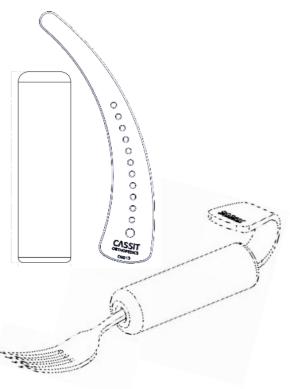
CUSTOMIZATION HIGHLIGHTS AND CONTRAINDICATIONS FOR Functional Thumb Adult Kit
CN 10049



- Working Steps: first bend the forearm area, then the wrist, then the thumb base support and finally the thumb area.
 - Make sure the bent splint parts do not touch each other
 - The top part of the splint must be below the proximal transverse skin crease of the palm to allow free finger movement
 - Make sure to bend the top edge of the splint below the proximal transverse skin crease of the palm to allow maximal comfort inside the palm

CUSTOMIZATION HIGHLIGHTS FOR Fork Holder Child/ Adult Kit CN 10066, 10068

- Bend the handle gently from the middle without applying high pressure
- Wear under or above the MP joint, but never on it
- Curve the top part of the handle to fit the palm
- Adjust grasping angle with a fork for maximal comfort
- After bending, insert the narrow area of the handle in the sponge tube and the fork from the other side of the sponge
- Lastly, the hand should come inside holder almost freely, and customized so that it does not fall from the hand.



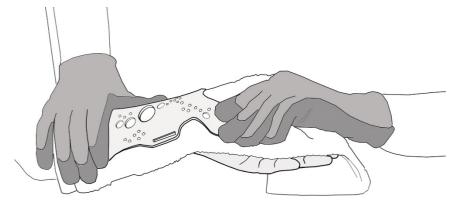
CUSTOMIZATION HIGHLIGHTS FOR

Cassit Towel and Gloves CN Towel 10801, Gloves 10703,10705

It is mandatory to use only thick dry towel and heat resistant gloves.



To protect your patient's hand from the heat, carefully place the towel on its hand folded to two, before starting customization.



CUSTOMIZATION HIGHLIGHTS FOR

Straps and special straps: Strap Set or extra straps

Strap 90	CN40105
Strap 110	CN40160
Strap 130	CN40107
Strap 155	CN40109
Strap 160	CN40125
Strap 180	CN40111

Strap 220	CN40113
Closer 64	CN40103
Finger Strap 65	CN40137
Finger Strap 80	CN40139
Finger Strap 100	CN40141
Fracture Strap	CN40205

- Usually the straps are inserted into the splint slots on the sides of the splint, from inside out, then the hook is closed on the loop.
- Pay attention that while wearing the splint the hard part of the strap the loop does not touch the patient's skin.
- The right strap length should be adjusted to the patient's hand.
- The strap should be closed with a little stretch to give a good contra to the splint, but at the same time make sure it does not stop the blood flow.
- It is recommended to replace the straps once a year.
- When cleaning the splint, remove the straps, clean them only with water and reinsert them after they have dried.

