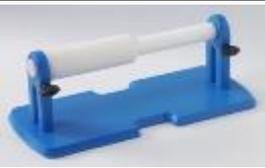




AIDS FOR THE MODULAR MULTI-FUNCTION SYSTEM

FOR OCCUPATIONAL AND/OR REHABILITATION THERAPY

USER'S MANUAL AND MAINTENANCE AIDS

AIDS / EXERCISES		
AR10008 HORIZONTAL SPIRAL 	AR10009 VERTICAL SPIRAL 	AR10010 OBLIQUE SPIRAL 
AR10011 WORM SCREW 	AR10012 FLEXO EXTENSION 	AR10013 LADDER 
AR10014 PRONE SUPINATION 	AR10015 LATCHES 	AR10016 ELECTRICITY 
AR10017 HANDLES 	AR10018 CUPS 	AR10019 CLIPS AND BUTTONS 
AR10020 LACES 	AR10021 BUCKLES 	AR10022 SCREWING IN PEGS 
AR10023 ELASTIC SLALOM 	AR10024 TIGHTENING CYLINDERS 	

POSSIBLE ADDITIONS:**USE ON VERTICAL AND/OR INCLINED PLANE**

The THEOREM system is designed to allow the greatest flexibility in using the aids, increasing their possible use, with a rehabilitation process than can be personalised for each patient.

The items shown above can be used individually or along with some loadbearing structures (see table below), for use in positions at various heights or on an incline.

Integration with these structures can be implemented at any time (also see the dedicated chapter).

LOADBEARING ELEMENTS		
AR10003 ERGO 100	AR10004 ERGO 400	AR10006 ERGO TABLE
		
	AR10007 TILT ERGO	
		

POSTURE MONITORING

In addition, in order to increase the user's awareness to allow the exercises to be executed correctly, the items above can be integrated with a "Posture Monitoring" system.

The items below can be added at any time (also see the dedicated chapter).

FEEDBACK ACCESSORIES - POSTURE MONITOR		
Art. 02036 INCLINOMETER	Art. 02037 PROTRACTOR	Art. 02038 POSITIONAL FEEDBACK
		

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1. REFERENCES

SCOPE, CONTENTS, AND INTENDED USERS

The intended users of this manual are all those that work with the various aids.

The purpose of this instruction manual is to guide users in making the best use of the working aid, keeping it effective and efficient, indicate the correct approach to the aid and Occupational Therapy.

MANUFACTURER

CHINESPORT S.P.A, Via Croazia,2-33100 Udine, Italia-tel.+39 0432621621–fax+39 0432621620 – website:www.chinesport.it

STORAGE

If these materials are stored, the following ambient conditions must be respected:

Relative humidity 10% / 90 % - temperature -10°C / +50°C

2. INTENDED USE

Each individual working aid is intended to be used as part of a programme to improve the health and quality of life of people affected by illnesses, physical or psychological disorders, or with temporary or permanent disabilities.

This manual is not a medical handbook, but simply provides the therapist with suggestions on choosing the aid best suited to the purpose. Each therapist is therefore free to "adapt" the exercise to the patient's needs.



USAGE LIMITS AND SPECIFIC WARNINGS

– **These aids must not be used:**

Without having seen to all the adjustments and setting up called for.

- When use is not advisable or causes the patient serious discomfort.
- If the original product has been tampered with and/or modified.
- When configured incorrectly or when there is any suspicion that it may harm the patient.

– **The plastic parts can catch fire if brought into contact with naked flames.**

– **Do not spill liquids on the metal parts.**

– **The physical and psychological suitability of the user to make use of the aids must be approved by a specialist.**

4. THE LIBRARIES

PRESENTATION

Current trends taking form in all areas of rehabilitation call for clinical practices to be ever more oriented towards tasks and ecological contexts, for exercise to be ever more meaningful for the patient, simple, and self-evident.

Within a rehabilitation process it is therefore important to introduce various items used daily by the patient to allow them to experiment with gripping them correctly.

The added value of intensive protocols is well known, as is the importance of supervision to ensure that the correct movement is repeated. Along with the aids proposed, monitoring systems are recommended for positional biofeedback that can be applied easily and make it possible to make exercise ever more correct, also as regards the control near the trunk.

Once the defect / compensation to be monitored has been identified, and the feedback device has been positioned and calibrated for the patient, the subject can exercise independently, extending their activity beyond the time the therapist is able to give them, while guaranteeing high quality exercise.

Particular care should be taken with very elderly patients that are often excluded from rehabilitation processes, without any plausible justification, if not for economic reasons.

This exclusion greatly reduces the possibility of recovery and maintenance of functional independence.

With the aids proposed it is possible to involve more people, with the same personnel involved, in an occupational rehabilitation process.

CLASSIFICATION

These aids are used to simulate various activities in daily life.

The items are broken down according to various characteristics:

- 1) By the activity sector ("Manipulation Skills", "Domestic Activities", "Clothing", and "Food").
- 2) By the number of hands foreseen for normal use (just 1 hand or both).
- 3) By the planes on which use is possible (in addition to the normal Horizontal plane, Vertically or at an adjustable Incline). For the latter two additional items for the modular system are required.
- 4) By the possibility of combining them with the Posture Monitoring system.

A series of icons is used, along with the presentation of each individual aid, to facilitate identifying which library it belongs to, and they are shown as indicated in the tables below:

ACTIVITY SECTOR:	USE OF THE AID:	USAGE SUPPORTS:	TYPE OF FEEDBACK (Can be combined separately)
 Manipulation skills  Domestic activities  Clothing  Food	 With 1 hand  With 2 hands	 Inclined / adjustable  Horizontal  Vertical	 Acoustic  Vibrating  Visual

The aids are installed in individual anti-bacterial polyethylene modules that are water and UV ray resistant and are easy to sterilise.

5. USE, DESCRIPTIONS, AND CHARACTERISTICS OF THE WORKING AIDS

AR10008 HORIZONTAL SPIRAL



This aid exercises the subject's prone-supine positioning hand movements. Specifically, the subject is asked to keep the ball between the first three fingers on the hand and guide it over the sinusoidal path. The exercise calls for the degrees of the forearm prone-supine joints to be used to the maximum. It is therefore useful to monitor the patient's behaviour while carrying out this task because incapacity to explore the maximum degrees of supination could be compensated for by leaning the trunk over to one side, while limiting pronation will result in early and excessive detachment of the arm from the trunk.

Dimensions: 39,5 x 22 X 32 h (cm)
Weight: 2,5 kg

AR10009 VERTICAL SPIRAL



An instrument similar to the horizontal spiral, but different in that this exercise calls for greater involvement of the upper limb. In addition to prone-supine positioning movements of the forearm one must, in fact, use arm movements that must guide the hand in the twisting movements. The aim of the task is to exercise the upper limb in a complex movement that calls for a good level of skill and fluid movements.

Dimensions: 39,5 x 17,5 X 28,5 h (cm)
Weight: 2 kg

AR10010 OBLIQUE SPIRAL



The oblique spiral offers 2 different possibilities.
1) Positioning on the horizontal plane: the elbow bends and extends to reach the curves on the flexible guide. Overcoming them requires radial / ulnar inclination movements.
2) Positioning on a vertical panel: This instrument is therefore similar to the vertical spiral, but differs in that positioning it at various heights and working in a upright position, obliges the subject to achieve greater bending and extension of the arm.

Dimensions: 39,5 x 29 X 10 h (cm)
Weight: 1,8 kg

AR10011 WORM SCREW

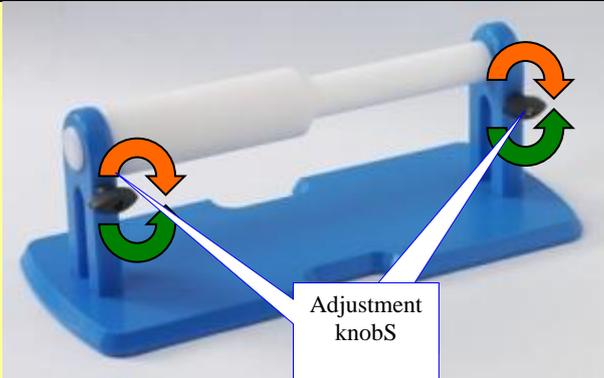


An aid that is useful for a patient to work independently in order to recover joint function between the interphalangeal on the finger and prone-supination. Executing this task correctly calls for the capacity to open and close the finger, while maintaining a set degree of pronation and supination of the hand. To do this, the subject must combine adequate muscular particularity and function, with good coordination of hand movements. The aim is to get to know the fine movements of their hands and how to use them better.

Dimensions: 39,5 x 17,5 X 15 h (cm)
Weight: 2 kg

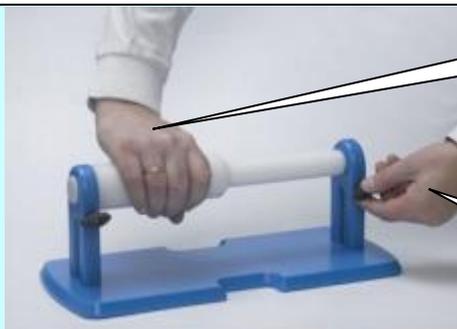
ART10011 - ADJUSTMENTS:

Rotate the handles in the direction indicated to obtain the relative effect:



 Greater effort
 Lesser effort

ART10011 - EXAMPLES OF USE:



This hand rotates the bar

This hand adjusts the effort



This photo shows the AR1011 in two different usage conditions.

To the left it is resting on the horizontal plane of the ERGO TABLE (art AR10006), with the patient seated.

To the right it is fitted on the ERGO 400 (art AR10004) vertical plane adjusted to a height of 178 cm, with the patient standing.



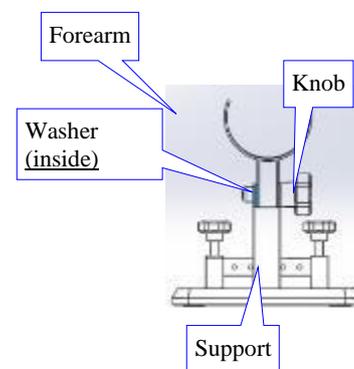
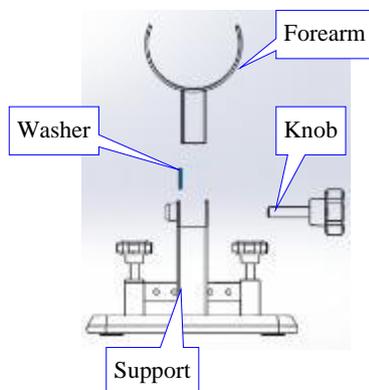
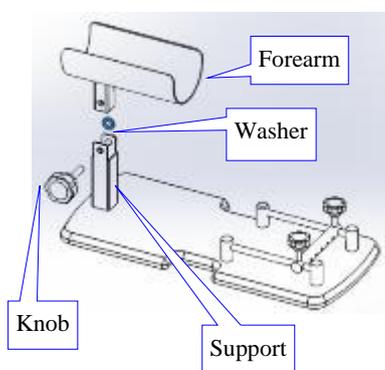
AR10012 FLEXO EXTENSION

The patient puts their forearm into a support that holds it in place. The fingers are connected to the elastics by means of fixings put over the fingers like rings.

A sliding adjustable system makes it possible to keep the optimum 90° angle between the phalanges and the elastics.

The (adjustable) tension in the elastics keeps the fingers' flexing muscles extended, changing the passive rigidity over time. Exercises can be done with concentric, eccentric and isometric contractions by the flexing muscles.

Dimensions: 39,5 x 17,5 X 19 h (cm)
Weight: 2,3 kg

AR10012 - SETTING UP:**AR10012 - GENERAL ADJUSTMENTS:**

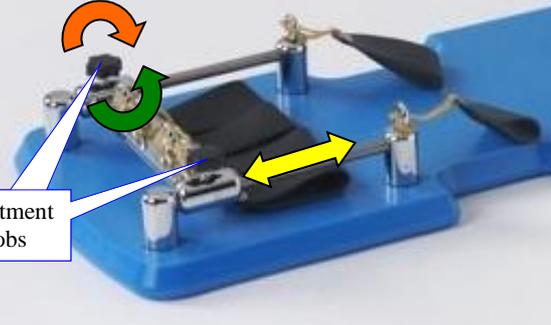
As shown here, the following adjustments can be made on this aid:

- Finger elastic unit / forearm unit distance
- Forearm support inclination
- Tension in the elastics

To adapt the positions, proceed as indicated below.

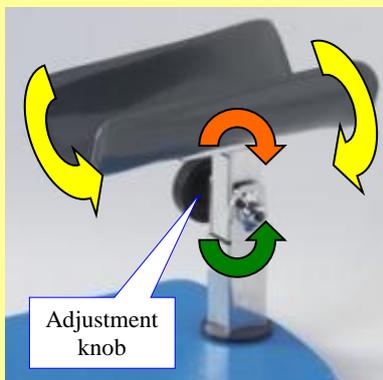
AR10012 - ADJUSTING THE FINGER ELASTIC UNIT DISTANCE

To adapt the positions, proceed as indicated below:

 <p>Adjustment knobs</p>	<ol style="list-style-type: none"> 1) Unscrew  2) Adjust distance  3) Tighten 
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AR10012 - ADJUSTING THE INCLINATION ON THE FOREARM SUPPORT

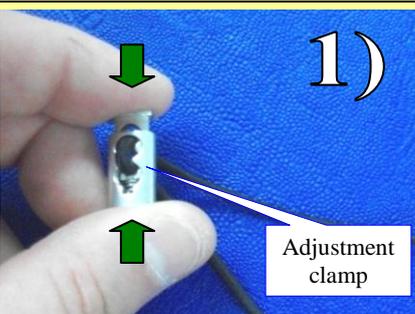
To adapt the positions, proceed as indicated below:

 <p>Adjustment knob</p>	<ol style="list-style-type: none"> 1) Unscrew  2) Adjust inclination  3) Tighten 
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AR10012 - ADJUSTING THE TENSION IN THE ELASTICS

To increase / decrease the traction force on each individual elastic / finger, proceed as indicated in the images below:

	<ol style="list-style-type: none"> 1) Keep the "clamp" pressed  2) Adjust the length of the elastic  3) Release the "clamp" to grip the elastic 
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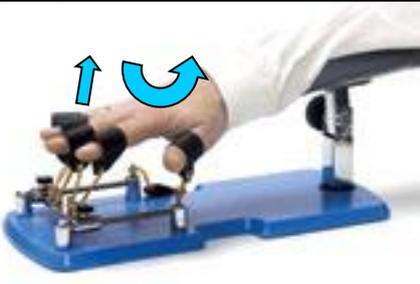
<p>Phase 1</p>  <p>1)</p> <p>Adjustment clamp</p>	<p>Phase 2</p>  <p>2)</p>	<p>Phase 3</p>  <p>3)</p>
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AR10012 - SPARE PARTS:

If the resistance provided by the elastics is insufficient for the purpose of the exercise (due to normal wear and user over time), an elastic kit can be ordered using the following code:

- 80.22.05.0367 FINGER BELTS, comprising
 - n° 1 finger belt in black leather
 - n° 1 piece of black elastic
 - n° 2 plastic end pieces for the elastic
 - n° 1 adjustment clamp

ART10012 - EXAMPLES OF USE:

<i>Hand in prone position with elastics at maximum distance</i>	<i>Hand in supine position with elastics at minimum distance</i>	
		
	<p style="text-align: center;">PLEASE NOTE: <i>The photo shows the art AR10014, but the positions also apply for art AR10012, shown in two different usage positions.</i></p> <p><i>To the left the patient is seated with the aid hooked to the ERGO 400 (art AR10004) support element, adjusted on the horizontal plane at a low position.</i></p> <p><i>To the right the patient is standing, with the same components adjusted to a position that is also horizontal, but higher up.</i></p>	

AR10013 LADDER



This aid is particularly suited to various types of use.

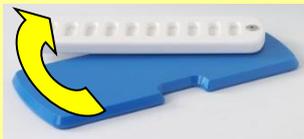
- 1) Positioned on a table: when put up on a horizontal surface in front of the patient, the ladder uses active work using the fingers to involve the proximal joints, extending the elbow and flexing the shoulder. In doing this progressive task using their fingers, the patient develops fluidity and coordination, alternating a flexing movement with one finger with the simultaneous extension of the other to reach the next step.
- 2) Positioned on a vertical panel: due to bulkiness considerations, the ladder positioned on the same axis as the table is rotated and therefore used vertically. This is particularly useful when you want to get the shoulder to a greater degree of bending.
- 3) Positioned on an adjustable table: the exercise proposed may be useful for teaching the patient to put the trunk in the correct direction, with the goal of achieving the changeover from the sitting to the upright position.
- 4) Patient seated a little away from the table: the aid is positioned so that when the most extreme position is reached with the fingers, with the elbow extended, the patient's barycentre is far enough forward to allow them to stand up.

Dimensions: 39,5 x 17,5 x 4 h (cm) (closed)

Weight: 2 kg

AR10013 - ROTATING THE BOARD:

To move the board simply use one hand to pull the white part, gripping the blue base firmly with the other hand.

		
a) Neutral position: recommended for fitting to loadbearing elements: art. AR10003, AR10004, AR10007	b) Rotation clockwise	c) Rotation anticlockwise

ART10013 - EXAMPLES OF USE:

<i>Use on the horizontal plane</i>	<i>Use on the vertical plane with the aid fitted on the ERGO 100 (art AR10003) loadbearing element.</i>
	

The images below show a 3-phase sequence to highlight the patient's movement: the aid is fixed to the TILT ERGO (art AR 10007) loadbearing element - which adjusted its inclination - and is in turn standing on the ERGO TABLE (art AR 10006).



AR10014 PRONE SUPINATION



This aid is designed to be positioned on a table, and used to ask and guide the patient in forearm prone-supination tasks. The two handwheels located lower than the equipment are used to position the unit correctly for the patient. The PROXIMAL SUPPORT on which the forearm is placed must be adjusted to a height that keeps the shoulder in a comfortable, neutral position. By raising and lowering the ADJUSTMENT ELEMENT with the elbow flexed, the position is changed to extra/intra rotation of the upper limb respectively. The HANDWHEEL nearest to the handle is used to adjust it to the correct tilt on the prone supination plane, while the upper HANDWHEEL is used to adjust a system that is able to provide resistance to the movement by the patient, which can be varied in intensity. The patient is therefore asked to overcome the resistance offered by the aid, and the extent of that resistance is determined by the therapist in relation to the therapeutic goal.
 Dimensions: 39,5 x 17,5 x 19 h (cm) (closed, can be raised to 22 cm)
 Weight: 2,6 kg

AR10014 - GENERAL ADJUSTMENTS:

	<p>As shown here, the following adjustments can be made on this aid:</p> <ul style="list-style-type: none"> • Forearm support height • Handle / phalanx height • Handle / phalanx inclination • Handle / phalanx force <p>To adapt the positions, proceed as indicated below.</p>
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AR10014 - ADJUSTING THE HEIGHT ON THE FOREARM SUPPORT:

<p>To adapt the positions, proceed as indicated below:</p>	
	<ol style="list-style-type: none"> 1) Unscrew 2) Adjust height 3) Tighten

AR10014 - ADJUSTING THE HEIGHT ON THE PHALANX HANDLE:

To adapt the positions, proceed as indicated below:

	<p>Adjustment knob</p>	<ol style="list-style-type: none"> 1) Unscrew 2) Adjust height 3) Tighten
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AR10014 - ADJUSTING THE INCLINATION ON THE PHALANX HANDLE:

To adapt the positions, proceed as indicated below:

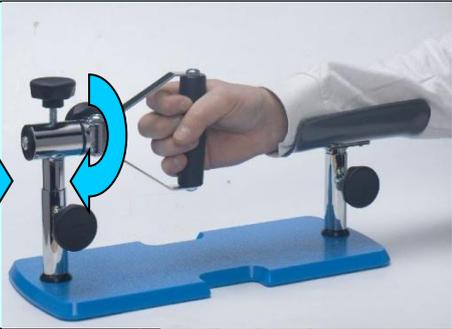
	<p>Adjustment knob</p>	<ol style="list-style-type: none"> 1) Unscrew 2) Adjust inclination 3) Tighten
--	------------------------	--

AR10014 - ADJUSTING THE ROTATION FORCE ON THE PHALANX HANDLE:

Rotate the handwheel in the direction indicated to obtain the relative effect:

	<p>Adjustment knob</p>	Greater effort Lesser effort
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ART10014 - EXAMPLES OF USE:

<i>Example of starting position</i>	<i>Example of 90° rotation</i>	
		
	<p style="text-align: center;">PLEASE NOTE: <i>The photo shows the art. AR10014 in two different usage positions.</i></p> <p><i>To the left the patient is seated with the aid hooked to the ERGO 400 (art AR10004) support element, adjusted on the horizontal plane at a low position.</i></p> <p><i>To the right the patient is standing, with the same components adjusted to a position that is also horizontal, but higher up.</i></p>	

AR10015 LATCHES



Aid made up of 2 individual components / exercises.

- 1) **"Sliding" latch** (Element on the left in the photo); given the size of the instrument, the subject must have a fine grip between the first three fingers. Also they must associate a small movement in the vertical plane to free the latch and move it along the horizontal plane. The patient can also be asked to do this task without using the visual channel, which means that they must rely on tactile-kinesthetic information.
- 2) **"Turning" knob** (Element on the right in the photo); in this case the grip involves controlling the thumb and side of the second finger. A supination and pronation rotating force is required to turn the handle.

Dimensions: 39,5 x 17,5 X 4,5 h (cm)
Weight: 1,3 kg

ART10015 - EXAMPLES OF USE:

<i>Detail of action on the sliding latch.</i>	<i>Aid positioned on the loadbearing element.</i>	
		<p><i>The image here shows the aid used while fitted on the element that adjusts its inclination, the TILT ERGO (art AR10007) that in turn rests on the ERGO TABLE(art. AR10006).</i></p> <p><i>The INCLINOMETER is also used (art. 02036) to help to maintain the correct posture.</i></p>

AR10016 ELECTRICITY



To activate the switch, the finger must be positioned on the correct half of the button.
 This task can also be done using two fingers: to make a rhythmic alternating movement, selectivity is required in successive recruiting of the flexing muscles in the two fingers.
 Putting a plug into a socket is a task that calls for attention, coordination and evaluating the force required to do so in safety.
 The patient must grip the two elements firmly in their hands and insert one into the other.

Dimensions: 39,5 x 17,5 X 8,5 h (cm)
 Weight: 1,3 kg

ART10016 - EXAMPLES OF USE:

The images below show some possible details / actions that can be carried out in different positions and of varying difficulty.

<p><i>Action 1: activating the switch (finger)</i></p>	<p><i>Action 2: inserting a plug (1 hand)</i></p>	<p><i>Action 3: hooking up an extension (2 hands)</i></p>
	<p><i>In this example the patient:</i></p> <ul style="list-style-type: none"> • is in a squatting position • They carry out action 2 <p><i>While the aid was fixed to the ERGO 400 (art AR10004) loadbearing element</i></p> <ul style="list-style-type: none"> • Adjusted on the vertical plane • to a very low position 	
	<p><i>In this example the patient:</i></p> <ul style="list-style-type: none"> • is standing • They carry out action 3 <p><i>While the aid was fixed to the ERGO 400 (art AR10004) loadbearing element</i></p> <ul style="list-style-type: none"> • Adjusted on the vertical plane • to a medium height 	

AR10017 HANDLES



Made up of a window handle (180° rotation with central pin) and a door handle (90° rotation with pin to one side). Depending on how the aid is positioned on the wall panel, this aid can be used with the left or right hand and at the correct height it can also simulate the movement for windows with a "tipping" opening system.

Dimensions: 39,5 x 17,5 X 8 h (cm)
Weight: 1,5 kg

ART10017 - EXAMPLES OF USE:

<i>Detail of action on the door handle</i>	<i>Aid positioned on the loadbearing element.</i>	
		<p><i>The image shows the use of the aid attached to the ERGO 1000(art AR 10003) loadbearing element.</i></p> <p><i>The PROTRACTOR is also used (art. 02037) to facilitate maintaining the correct posture.</i></p>

AR10018 CUPS



Weight: 1,3 kg

In gripping the cup the weight of the object is used because the circumference is supported by the grip formed by the thumb and middle finger, and a hook made up of the index finger.
 This grip requires excellent thumb and middle finger stability, as well as the integrity of the deep flexor on the index finger and abductor on the thumb, which is essential for this task.
 To grip the cup it is important to have good skill in using flexing/ extending muscles of both the hand and the rest of the upper limb in a harmonious manner, for the reaching and subsequent gripping phases.
 You can also work on the patient's capacity to open their hand to grip / release the cup at various heights.
 Common disposable plastic cups can be inserted.

Dimensions: 39,5 x 17,5 X 13,8 h (cm)

ART10018 - EXAMPLES OF USE:

Detail of action	Aid positioned on the loadbearing element.	
		<p><i>The image shows the use of the aid attached to the ERGO 400(art AR 10004) loadbearing element, with the patient standing. Varying the height changes the difficulty of this exercise.</i></p> <p><i>The INCLINOMETER is also used (art. 02036) to facilitate maintaining the correct posture.</i></p>
<p><i>The case on the right simulates moving liquids from one cup to another:</i></p>		<p><i>In this case, the aid is fitted to the ERGO 100 (art AR 10003) loadbearing element, with the patient sitting.</i></p> <p><i>Here too, the INCLINOMETER is added (art. 02036) to facilitate maintaining the correct posture.</i></p>

AR10019 CLIPS AND BUTTONS



As regards the aid with four press studs, significant pressure force is required from the first finger.
 The Trapeziometacarpal joint must be kept in the most suitable position between the bone ends, by the action of the intrinsic muscles that contract to stabilise the joint.
 The aim is to reduce radial dislocation of the metacarpal while applying force with the thumb, because this is a cause of pain for rhizoid arthritis pathologies.
 As regards the buttoning task, greater precision and independent action on the part of each finger is essential. The pulp of the thumb opposes that on the index and middle fingers, to incline the button and push it through the slot.

Incorrect terminal opposition makes the task impossible, due to the shape of the object.
 The aid comprises 4 press studs on the one side and 4 buttons like those found on many items of clothing on the other side.
 Dimensions: 39,5 x 17,5 X 2,5 h (cm)
 Weight: 1,2 kg

ART10019 - EXAMPLES OF USE:

Detail of action	Aid positioned on the loadbearing element.	
		<p><i>The image shows the use of the aid attached to the ERGO 400 (art AR 10004) loadbearing element.</i></p>

AR10020 LACES



This aid is particularly suited to various types of use.
 1) Positioned on a table: In this position the task is made easier than when positioned vertically, due to the fact that the patient is not tired out by having to keep their arms raised and stabilised during the task.
 2) Positioned on a vertical panel: To do these tasks, applying pressure by opposing endings is essential. This grip is finer and more precise because it makes it possible to hold an object securely. The thumb opposes the pulp side end of the end of the index finger, gripping the lace and the prone supination movements of the forearm, associated with flexing the wrist, make it possible to do the task and threading the lace through the various holes.

For both these tasks the side of the hand acts to stabilise the object, and good coordination is essential to complete the tasks. Bear in mind that even a minor injury that damages these articular areas can compromise this pincer grip - in fact, complete passive articular control of the distal IF on the second finger is required as well as stability of the deep flexor and synchronised activation of the long flexor in the thumb.
 On one side this aid has laces with holes and "eyelets" (closed rings), and on the other laces hooked in an "oblique" direction by chromed hooks, both of which are found on many types of footwear.

Dimensions: 39,5 x 17,5 X 2,5 h (cm)
 Weight: 1,1 kg

ART10020 - EXAMPLES OF USE:

	<p><i>The image shows the aid fitted to the ERGO 400 (art AR10004) loadbearing element and, despite being similar to the previous in terms of positions, the type and difficulty of execution is completely different.</i></p>
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AR10021 BUCKLES



Good hand-eye coordination is required to insert the buckle.
 To tension the parts once inserted, a sub termino-lateral grip is used.
 The palm face of the thumb's pulp rests on the outer face of the first phalanx on the index finger.
 The muscles that stabilise the grip are the first dorsal interosseous, that acts on the index finger, the short flexor, the first palm interosseous and abductor of the thumb.
 This aid has a clip Belt Buckle on the one side that can be altered in length, and an end complete with zip that can be opened.
 The clip Belt Buckle also requires good coordination and significant force has to be applied by the thumb, opposing the index finger to clip the fixing device in place.

Dimensions: 39,5 x 17,5 X 4 h (cm)
 Weight: 1,1 kg

ART10021 - EXAMPLES OF USE:

The images below show some possible details / different actions

		
<p><i>Action 1: hook / release the buckle</i></p>	<p><i>Action 2: adjust the length of the buckle</i></p>	<p><i>Action 3: hook / unhook and close / open the zip</i></p>
	<p><i>In this example the patient:</i></p> <ul style="list-style-type: none"> • <i>is standing</i> • <i>They carry out action 3</i> <p><i>While the aid was fixed to the ERGO 400 (art AR10004) loadbearing element</i></p> <ul style="list-style-type: none"> • <i>Adjusted on the vertical plane</i> • <i>to a medium height position.</i> 	

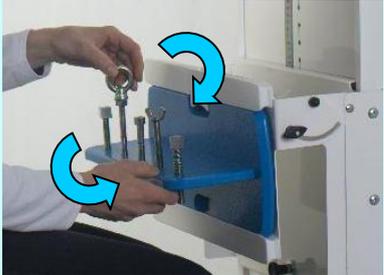
AR10022 SCREWING IN PEGS



To do the tasks using this kit, coordinated use of both hands is essential. In this way the pressure of the thumb and index finger oppose the pulp side of the palm. This grip also coordinates the flexing gripping muscles of the first phalanx of the thumb: short flexor, first palm interosseus, and short abductor. The various shapes of the head of the screw varies the degree of ease and stability of the grip. There is also a two-handed task, in which one hand acts to secure the screw, while the other is involved in a rotation task to tighten / loosen the bolt. This aid has 5 different peg "head" shapes for various levels of difficulty of gripping using the fingers.

Dimensions: 39,5 x 17,5 x 13,8 h (cm)
Weight: 2 kg

ART10022 - EXAMPLES OF USE:

Detail of action	Aid positioned on the loadbearing support	
		<p><i>In this example the patient engages in screwing in vertically ...</i></p> <p><i>... specifically because the aid is fixed to the ERGO 400 (art. AR10004) loadbearing element with the tilting plane adjusted to the vertical position</i></p>
		<p><i>Whereas in this example the patient engages in screwing in horizontally... because when the tilting plane is adjusted to the horizontal position, the aid also changes position.</i></p> <p><i>In both cases the ERGO 400 (art AR10004) loadbearing element is used.</i></p>

AR10023 ELASTIC SLALOM



This aid is made to allow patients to exercise using "slalom" tasks between the pegs, following a sequence determined by the therapist on each occasion. Precision and coordination of movements is required to keep the elastic cord taut and to guide it during the exercise. The ring facilitates holding it. The unit has 5 plastic pegs: One of these is used to hold the end of the elastic to be "guided" as indicated by the therapist.

Dimensions: 39,5 x 17,5 x 10 h (cm)
Weight: 1,5 kg

ART10023 - EXAMPLES OF USE:

Detail of action	Aid positioned on the loadbearing support	
		<p><i>In addition to standing, the patient can obviously also do this exercise sitting.</i></p> <p><i>For this example the aid has been fixed to the ERGO 400 (art AR10004) loadbearing element, with the surface adjusted to a slightly inclined position.</i></p>
		<p><i>In this example the patient, standing, simulates the action of hanging up a jacket.</i></p> <p><i>This is intended to indicate the possibility of extending the range of exercises, leaving room for the therapist's imagination.</i></p> <p><i>In both cases the ERGO 400 (art AR10004) loadbearing element is used.</i></p>

AR10024 TIGHTENING CYLINDERS



The tightening / loosening action involves a three-finger grip in which the thumb is positioned to the side, while the phalanx on the middle finger opposes the index finger.

The role of counterposing the middle finger to the thumb is reinforced by the support that the third finger gets from the fourth and fifth fingers.

The three different head diameters provide for increasing the complexity of the task.

This aid comes with 3 head diameters for three levels of difficulty for gripping using the hand-wrist, and the idea is to simulate caps on food containers, a light bulb, gas tap, etc.

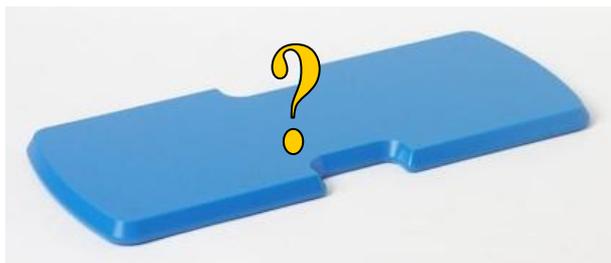
Dimensions: 39,5 x 17,5 x 13,8 h (cm)

Weight: 2,5 kg

ART10024 - EXAMPLES OF USE:

Detail of action	Aid positions on the loadbearing support	
		<p><i>Screwing vertically downwards with the patient standing. Classic jar opening example.</i></p> <p><i>For this example the aid has been fixed to the ERGO 100 (art AR10003) at a medium-low height.</i></p>
		<p><i>Screwing vertically upwards with the patient standing. Classical example of screwing in a light bulb.</i></p> <p><i>For this example the aid has been fixed to the ERGO 400 (art AR10004) at maximum height.</i></p>
		<p><i>Inclined screwing in with the patient sitting. Example of a gas tap with the patient in a wheelchair.</i></p> <p><i>For this example the aid has been fixed to the TILT ERGO (art AR10007) loadbearing structure, supported by the ERGO TABLE (art AR 10006).</i></p>

6. PERSONALISING THE AID



In our ongoing quest to improve this project, with the addition of new work aids and applications, we kindly request anyone involved to inform us of specific needs that are currently not covered by what is offered as standard in this catalogue.

Feel free to send us your request by sending an e-mail to: tecnico@chinesport.it
Your request will be evaluated seriously for tailor made customisation or subsequent production as standard.

7. MAINTENANCE AND CLEANING

Routine maintenance tasks are to be carried out at least once every 12 months.

FREQUENCY	TASK
Half-yearly	General cleaning of the equipment
	Visual and functional inspection of the equipment, adjustment systems and elastics.

Use a damp cloth and non-aggressive detergent to clean.
Do not allow other liquids to get to any part of the equipment.

DIRECT E-MAIL FOR TECHNICAL ASSISTANCE

assistenza@chinesport.it

Alternatively you can contact us by fax at n° (+39) 0432-621698 or telephone (+39) 0432 621699.

8. WARRANTY

GENERAL AFTER-SALES SERVICE CONDITIONS FOR CHINESPORT ITEMS

The warranty shall be valid for a period of 24 months from the date of delivery.

The warranty does not cover consumable items, rechargeable batteries, and generally all the material subject to wear, breakdowns caused by knocks, falls, misuse or improper use, accidental events and transport damage. This warranty shall be automatically invalidated if the equipment is tampered with.

Repair of the equipment will be carried out in relation to the breakdown stated.

An estimate must be specifically requested.

Payment is cash on delivery, unless other agreements are made.

Any dispute will be dealt with solely by the Court of UDINE.

WARRANTY REPAIRS

Repairs under warranty must be specifically requested.

Repairs under warranty shall be carried out at our workshop and upon authorization.

The return shipment for products sent in their original package will be made free of carriage charges.

A fiscal document (bill of sale, purchase invoice or cash receipt) is required to make a warranty claim; the purchase date indicated must fall within the warranty time period.

If the product is found to be in good working order without defect, the fault-finding service shall be charged to the customer.

OUT-OF-WARRANTY REPAIRS

For out-of-warranty repairs carried out at our workshops upon authorization, transportation charges shall be paid by the customer.

The warranty of the parts replaced during the repair operations is 12 months from the moment the equipment is collected.

If the product is found to be in good working order without defect, the fault-finding service shall be charged to the customer.

REPAIRS MADE AT HOME

In the event repairs are made at the customer's home, a written request is required indicating the complete details of the person making the request, the type of machine and the breakdown.

The cost per kilometer for on-site technician visits will be agreed upon in relation to the urgency of the customer.

In the event the machine is under warranty, the customer will have to pay only the expenses incurred for the technician to reach the customer's house.

Time is calculated from the moment the technician leaves our workshop until he/she returns. The time of his/her return will be estimated based on the time required to get there.

SALE OF SPARE PARTS AND CONSUMABLE ITEMS

The orders must be in writing and specify the customer, the item and the shipping method as well as the precise fiscal data of the customer.

The order processing time can vary depending on the availability of the material.

Returned spare parts will not be accepted.

Payment will be cash on delivery, unless other agreements are made.

9. USE ON VERTICAL AND/OR INCLINED PLANE

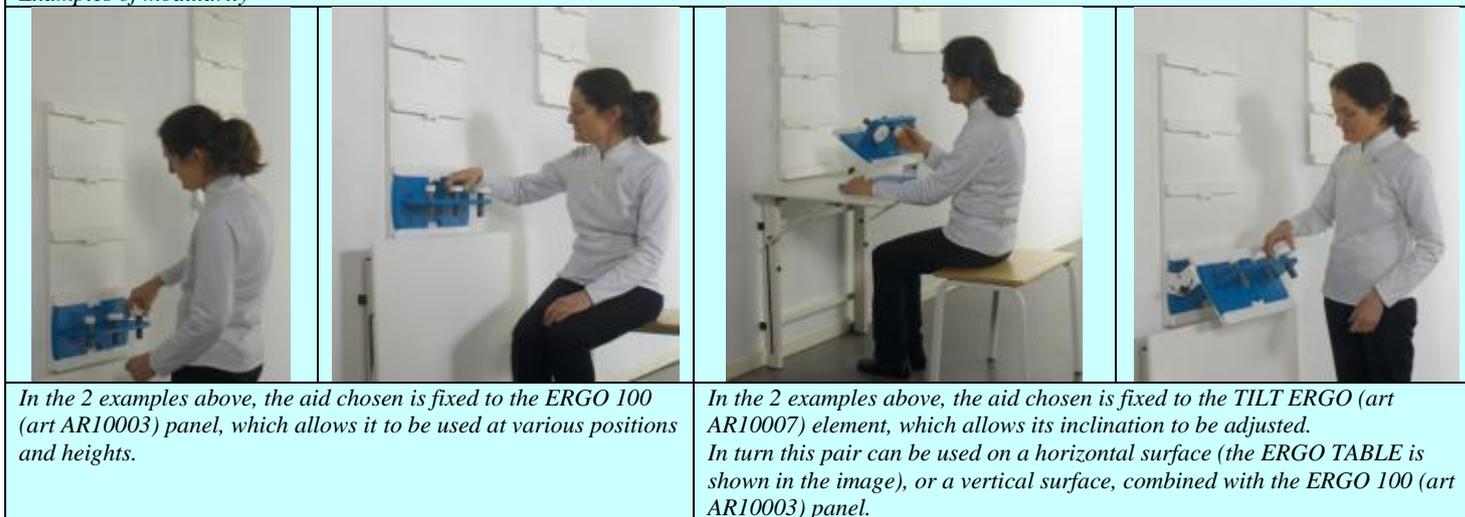
MODULARITY

Modularity comes into its own with the variety of solutions proposed for executing occupational exercises, which can be done in a standing position or seated.

To make this possible, each individual aid can be fixed to the configurable loadbearing structures, of various types. These items, which can be combined at any time, can be equipped with the aids deemed most useful on each occasion, and chosen from the libraries available and already dealt with in this manual.

Using the same space for the wall panel it is therefore possible to vary the therapeutic exercises the patient is to carry out while standing. The time the therapist requires to set up the modules on the panel is minimal.

Examples of modularity



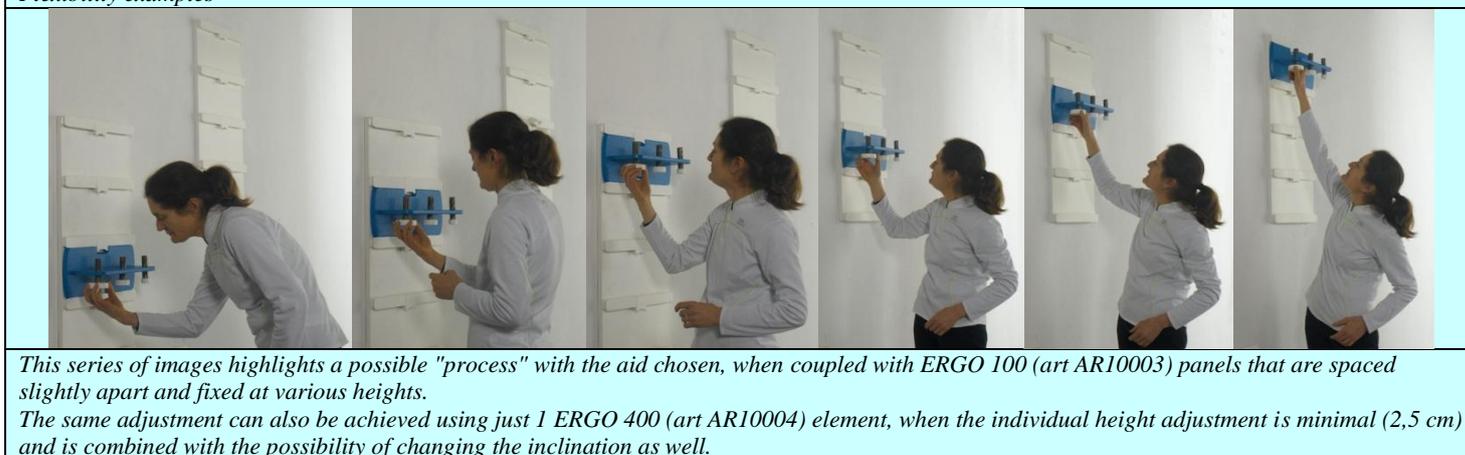
Some exercises carried out standing upright can therefore also be carried out sitting, using a normal table or the specific (folding) ERGO TABLE AR10006 for a more complete configuration of the workstation.

As shown in the images, the flexibility of the "THEOREM" programme arises from the need to provide the patient with the possibility of making the exercise better suited to their limitations. Once the aid to be worked with has been identified, it can be positioned in the most suitable position.

FLEXIBILITY

To better understand how the system can be adapted to the patient's needs, simply look at the images below to see how practically each aid can be repeated in all (or almost all) the positions indicated, perhaps by means of a gradual process as regards increasing the difficulty in doing the exercise. The possibility of positioning the individual work module higher up brings gradualness and progression to the exercise, as the patient improves. Each individual work aid can therefore be used horizontally, vertically and at an inclined position between 0° and 90°.

Flexibility examples



10. POSTURE MONITORING

By means of the exercise the patient must achieve gradual perfection of movements, from the complexity required for shoulder, arm, forearm, and elbow movements, to fine movements at the wrist distal, hand and fingers. To make a stable position possible for the arm for which fine use of the hand is activated, proximal control of the trunk is fundamentally important. Attention must not be focussed solely on interaction with the aid, but must also take the way the patient uses the various areas of their body into account.

Simple gestures like opening / closing a door or window, and taking a glass of water, if included in therapeutic contexts with position monitoring instruments, are very useful for correct functional relearning.

The use of position feedback instruments (inclinometer - protractor) makes it possible to draw the patient's attention to the motorial behaviour of areas of their body, of which the patient is not always fully aware, providing information on performance, and focussing attention on important aspects of the gesture.

Also adding Feedback has a motivating effect and produces an immediate increase in performance.

The examples below suggest combinations of aids, support panels from the Theorem project, and Posture Monitoring components. They show how to use simple elements to check the movement made by the patient for the required exercise, and may be used to organise a course of rehabilitation to correct the movement.

Obviously, the combination possibilities vary according to the aid, exercise, patient's posture, etc. allowing the therapist to develop personalised work programmes to suit the patient's needs.

Examples of use

		<p><i>In this example the CUP (art AR10018) aid is used, hooked to an ERGO 100 (art AR10003) panel, with the patient wearing an INCLINOMETER (art 02036).</i></p>
		<p><i>In this example the HORIZONTAL SPIRAL (art AR10018) aid is used, hooked to an ERGO 400 (art AR10004) support, with the patient wearing a POSITION FEEDBACK set (art 02038).</i></p>
		<p><i>In this example the HANDLES (art AR10017) aid is used, hooked to an ERGO 100 (art AR10003) panel, with the patient wearing a PROTRACTOR (art 02037).</i></p>
<p>Note: In the images shown for the previous examples, the posture on the Left is correct, while that on the right is the incorrect posture.</p>		

11. DECLARATION OF CONFORMITY

DICHIARAZIONE DI CONFORMITÀ - DECLARATION OF CONFORMITY DÉCLARATION DE CONFORMITÉ – DECLARACIÓN DE CONFORMIDAD

SECONDO L'ALLEGATO VII DELLA DIRETTIVA 93/42/CEE MODIFICATA DALLA 2007/47/CE
 ACCORDING TO ATTACHED VII OF THE DIRECTIVE 93/42/EEC AMENDED BY 2007/47/CE
 SELON L'ANNEXE VII DE LA DIRECTIVE 93/42/CEE MODIFIÉE PAR LA 2007/47/CE
 SEGÚN EL ANEXO VII DE LA DIRECTIVA 93/42/CEE MODIFICADO POR LA 2007/47/CE



<p>Codice articolo - <i>Product code</i> <i>Code de l'article – Código del artículo</i> Denominazione prodotto-<i>Product name</i> <i>Dénomination du produit-Denominación del producto</i></p> <p>Destinazione d'uso <i>Intended use</i> <i>Destination d'emploi</i> <i>Destino de empleo</i> <i>Zweckbestimmung</i></p> <p>Classificazione 93/42/CEE – <i>93/42/CEE Class</i> <i>Classification 93/42/CEE – Clasificación 93/42/CEE</i></p> <p>Produttore – <i>Manufacturer</i> <i>Producteur - Productor</i></p>	<table style="width: 100%; border: none;"> <tr> <td style="width: 33%; vertical-align: top;"> <p>AR10008 HORIZONTAL SPIRAL AR10011 WORM SCREW AR10014 PRONE SUPINATION AR10017 HANDLES AR10020 LACES AR10023 ELASTIC SLALOM</p> </td> <td style="width: 33%; vertical-align: top;"> <p>AR10009 VERTICAL SPIRAL AR10012 FLEXO EXTENSION AR10015 LATCHES AR10018 CUPS AR10021 BUCKLES AR10024 TIGHTENING CYLINDERS</p> </td> <td style="width: 33%; vertical-align: top;"> <p>AR10010 OBLIQUE SPIRAL AR10013 LADDER AR10016 ELECTRICITY AR10019 CLIPS AND BUTTONS AR10022 SCREWING IN PEGS</p> </td> </tr> </table> <p><i>Ausili per riabilitazione funzionale arti superiori</i> <i>Devices for upper limbs functional rehabilitation</i> <i>Aides de réhabilitation fonctionnelle pour les membres supérieurs</i> <i>Ayudas de rehabilitación funcional de las extremidades superiores</i> <i>Hilfsmittel zur funktionellen Rehabilitation der oberen Gliedmaßen</i></p> <p style="text-align: center;">I</p> <p>Chinesport S.p.a. – via Croazia, 2 – 33100 UDINE (Italy) www.chinesport.it</p>	<p>AR10008 HORIZONTAL SPIRAL AR10011 WORM SCREW AR10014 PRONE SUPINATION AR10017 HANDLES AR10020 LACES AR10023 ELASTIC SLALOM</p>	<p>AR10009 VERTICAL SPIRAL AR10012 FLEXO EXTENSION AR10015 LATCHES AR10018 CUPS AR10021 BUCKLES AR10024 TIGHTENING CYLINDERS</p>	<p>AR10010 OBLIQUE SPIRAL AR10013 LADDER AR10016 ELECTRICITY AR10019 CLIPS AND BUTTONS AR10022 SCREWING IN PEGS</p>
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<p>I dispositivi sopra elencati sono conformi ai requisiti essenziali della Direttiva sui Dispositivi Medici 93/42/CEE e successive modifiche <i>The devices listed above comply with the essential requirements of MDD 93/42/EEC and subsequent amendments.</i> <i>Les dispositifs du dessous sont conformes aux qualités essentielles de la Directive sur les dispositifs médicaux 93/42/CEE et suivantes modifications.</i> <i>Los dispositivos sobre listados son conformes a los requisitos esenciales de la Directiva sobre los dispositivos médicos 93/42/CEE y sus posteriores modificaciones.</i></p>				
<p>Udine, 2012.10.30</p>	<p style="text-align: right;">CHINESPORT S.p.A. (Legal Rep.)</p>			