

MultiMotion

Dynamic Corrective Joints



Professional Orthopedic Products

MultiMotion

The Next Generation

We would like to introduce you to the next generation of our MultiMotion dynamic corrective joints. First of all, there is its eye-catching, clean design and modern appearance. The expressive details make this hinge a worthy successor, but that's not all. Hidden from view, this dynamic joint houses a variety of new features which are accentuated, among other features, by the use of high-quality materials.



MultiMotion

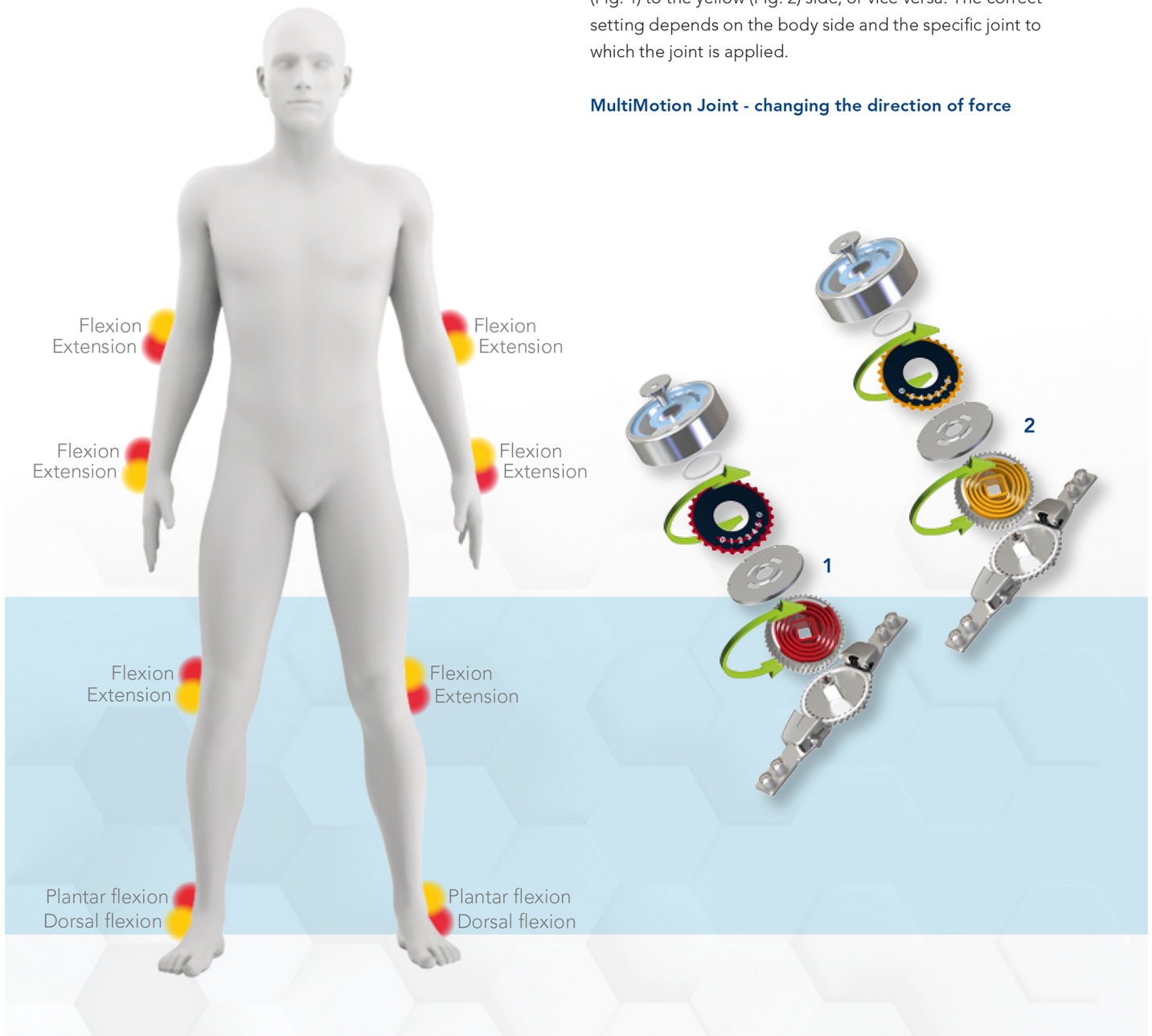
Dynamic Corrective Joint

Our dynamic corrective joints are designed for the treatment of patients with limited joint mobility and provide safe, efficient and appropriate treatment of contractures due to neurological and orthopedic conditions. The corrective joint is deployed in orthoses, either for children, adolescents or adults.

The functionality of the MultiMotion corrective joint is based on the LLPS (Low Load Prolonged Stretch) principle. This process of gradual, precise and evenly applied tension promotes the growth of the shortened tissue and increases joint mobility. The application of a low but sustained corrective force lengthens the affected tissue, improving the range of motion of the joint.

Treatment of the contracture can be done in both flexion or extension with the very same joint. The selection of these is easily adjusted by flipping the spring cassette from the red (Fig. 1) to the yellow (Fig. 2) side, or vice versa. The correct setting depends on the body side and the specific joint to which the joint is applied.

MultiMotion Joint - changing the direction of force



MultiMotion

Dynamic Corrective Joint

Intended use: treatment of dynamically correctable contractures

Application

The corrective joint facilitates efficient treatment of dynamically correctable contractures according to the LLPS principle.



Neurological indications

- Apoplexy (CVA)
- Cerebral palsy
- Cranial Brain Trauma
- Dystrophy
- Multiple sclerosis
- Paresis
- Spina bifida

Contraindications

- Abnormal arthrokinematics
- Ankylosis
- Arthrodesis
- Fibrosis
- Ossification

Features

- Torque output possible in flexion or extension
- Range of Motion: +95° to -95°
- Adjustable flexion and extension stops
- Locking- and unlocking possible in virtually any position
- Torque Output Infinitely adjustable
- Adjustable 0 point
- Medial and lateral access to torque output set screw
- Material: steel/stainless steel, plastic

Orthopedic indications

- Amputation
- Fracture
- Ligament rupture
- Post-op after placement of endoprostheses, etc.

Product functionality

- Infinitely adjustable dynamic extension or flexion of the joint

Benefits in achieving therapy goals

- Improvement/rehabilitation of joint mobility
- Secure and step-wise joint mobilization
- Elongating/mobilizing spastic musculature
- Strengthening the musculature
- Improvement of the resting position
- Prevention of cartilage damage and ulcers

Components

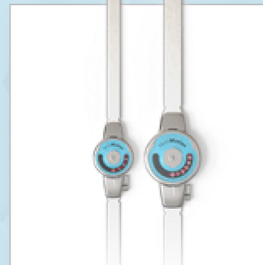
MultiMotion joints are available in sizes medium and large. In addition, these components come in configurations with a modular bar adapter or with integrated bars and/or T-bar. In addition to an alignment unit, various types of joint bars are available as accessories for MultiMotion. In case of a bilateral application where a companion joint is preferred for the contralateral side, a selection can be made from the FreeMotion series of freely movable joints.



Modular



Modular + T-bar



Integrated bars



Integrated bars + T-bar

MultiMotion

Corrective Joints with modular bar adapter

Treatment recommendation

Joint: wrist / elbow / hip / knee / ankle

Features

- Proximal and distal connection: modular bar adapter
- Bar width connection: 12 mm (medium), 16 mm (large)
- Adjustable flexion and extension stops



Size chart

Item number	UOM	Size	Bar width	Joint thickness	Offset T-bar	Overall length	Joint weight	Housing diameter	Maximum spring load
MM04M-12	each	medium	12 mm	19 mm	-	124 mm	125 g	36 mm	4,1 Nm
MM05M-16	each	large	16 mm	24 mm	-	144 mm	268 g	50 mm	8,4 Nm

Corrective Joints with modular bar adapter & T-Bar

Treatment recommendation

Joint: wrist / ankle

Features

- Proximal connection: modular bar adapter
- Bar connection width: 12 mm (medium), 16 mm (large)
- Distal connection: T-bar
- T-bar length: 155 mm (medium), 185 mm (large)
- Adjustable flexion and extension stops



Size chart

Item number	UOM	Size	Bar width	Joint thickness	Offset T-bar	↑ Axis to bottom	Joint weight	Housing diameter	Maximum spring load
MM04MT-12	each	medium	12 mm	19 mm	10 mm	56 mm	154 g	36 mm	4,1 Nm
MM05MT-16	each	large	16 mm	24 mm	10 mm	73 mm	303 g	50 mm	8,4 Nm

Corrective Joints with integrated bars

Treatment recommendation

Joint: wrist / elbow / knee

Features

- Proximal and distal: integrated bars
- Proximal and distal bar length: 270 mm
- Adjustable flexion and extension stops



Size chart

Item number	UOM	Size	Bar width	Joint thickness	Offset T-bar	Overall length	Joint weight	Housing diameter	Maximum spring load
MM04B-12	each	medium	12 mm	19 mm	-	540 mm	210 g	36 mm	4,1 Nm
MM05B-16	each	large	16 mm	24 mm	-	540 mm	405 g	50 mm	8,4 Nm

Corrective Joints with integrated bars & T-Bar

Treatment recommendation

Joint: wrist / ankle

Features

- Proximal integrated bar
- Proximal bar length: 270 mm
- Distal connection: T-bar
- T-bar length: 155 (medium), 175 mm (large)
- Bar width: 12 mm (medium), 16 mm (large)
- Adjustable flexion and extension stops



Size chart

Item number	UOM	Size	Bar width	Joint thickness	Offset T-bar	↑ Axis to bottom	Joint weight	Housing diameter	Maximum spring load
MM04BT-12	each	medium	12 mm	19 mm	10 mm	56 mm	125 g	36 mm	4,1 Nm
MM05BT-16	each	large	16 mm	24 mm	10 mm	73 mm	268 g	50 mm	8,4 Nm

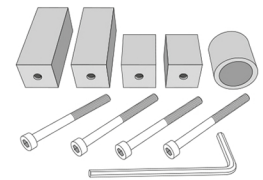
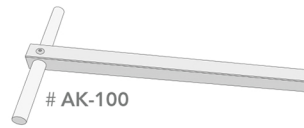
Accessories

MultiMotion alignment unit

This alignment unit eases the production of the orthosis and is a convenient, high quality tool that can be used multiple times for the proper alignment of the MultiMotion joints on the cast.

Size chart

Item number	UOM	Description
AK-100	each	T-Bar
AK-102	set	Alignment unit

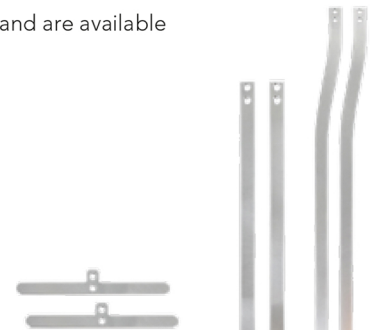


Joint Bars

All bars are supplied pre-drilled for optimum attachment. The bars have a high rigidity and are available in two different sizes and several configurations.

Features

- Material: Aluminum



Size chart

Item number	UOM	Size	Bar Length	Bar Width	Bar Thickness	Model
BAR-S-12	set (2 bars)	small	200 mm	12 mm	3,2 mm	Straight
BAR-O-12	set (2 bars)	small	350 mm	12 mm	3,2 mm	Offset
BAR-T-12	set (2 bars)	small	150 mm	12 mm	3,2 mm	T-Bar
BAR-S 16	set (2 bars)	medium	200 mm	16 mm	4,0 mm	Straight
BAR-O-16	set (2 bars)	medium	450 mm	16 mm	4,0 mm	Offset
BAR-T-16	set (2 bars)	medium	150 mm	16 mm	3,2 mm	T-Bar



Accessories

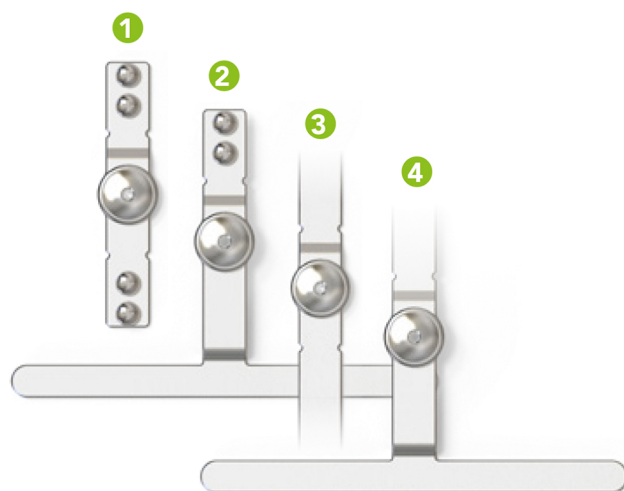
FreeMotion Free Movable Joints

FreeMotion represents a product series of single-axis free motion joints, suitable for individual orthopedic devices of the upper and lower extremity for children, adolescents and adults. The joint can be deployed individually, but is also an ideal companion joint in combination with the MultiMotion corrective joint.

Intended use: these free motion joints can be deployed as an individual joint or as a companion joint on the contra lateral side of the affected joint to improve the torsional rigidity of the orthosis.

Features

- Configurations:
 - Proximal and distal modular bar adapter ⁽¹⁾
 - Proximal bar adapter, distal with T-Bar ⁽²⁾
 - Proximal integrated bar, distal with T-Bar ⁽³⁾
 - Proximal and distal integrated bars ⁽⁴⁾
- Range of motion: +120° tot -120°
- Material: stainless steel



Size chart

Nr.:	Item number	UOM	Size	Side	Length	Width	Height	Weight	Ø Joint head	Offset T-Bar	↑↓ Axis to bottom
1	FM03M-12	each	small	universal	93 mm	12 mm	11 mm	40 g	18 mm	-	46 mm
2	FM03MT-12	each	small	universal	97 mm	12 mm	11 mm	72 g	18 mm	10 mm	50 mm
3	FM03B-12	each	small	universal	400 mm	12 mm	11 mm	102 g	18 mm	-	200 mm
4	FM03BT-12	each	small	universal	250 mm	12 mm	11 mm	106 g	18 mm	10 mm	50 mm
1	FM04M-16	each	medium	universal	97 mm	16 mm	11 mm	52 g	22 mm	-	48 mm
2	FM04MT-16	each	medium	universal	105 mm	16 mm	11 mm	88 g	22 mm	10 mm	55 mm
3	FM04B-16	each	medium	universal	400 mm	16 mm	11 mm	140 g	22 mm	-	200 mm
4	FM04BT-16	each	medium	universal	260 mm	16 mm	11 mm	134 g	22 mm	10 mm	55 mm



MultiMotion

Dynamic Hip Abduction System

Intended use: Treatment of correctable adduction contractures in the hip joint



Treatment recommendation

Joint: hip (pediatrics)

This system is assembled to individually made KAFO shells and features an infinitely adjustable rotation setting. This allows the leg to be positioned in a physiologically correct manner. The adductors are elongated by the gradually applied tension which stimulates the growth of the shortened tissue and increases joint mobility.

Indications

- Diplegia, spastic
- Hip joint subluxation, congenital
- Tetraplegia, spastic
- Triplegia, spastic

Features

- Infinitely adjustable abduction force
- Adjustable flexion and extension stops
- Infinitely adjustable rotation (-40° to +40°)
- Quick release for leg shells for easy donning and doffing

Product functionality

- Infinitely adjustable dynamic abduction of the hip joint
- Limiting the adduction or abduction of the hip joint
- Locking the hip abduction and adduction
- Rotation setting of the hip

Benefits in achieving therapy goals

- Improvement/rehabilitation of joint mobility
- Secure and step-wise joint mobilization
- Elongating/mobilizing spastic musculature
- Strengthening the musculature
- Improvement of the resting position
- Prevention of cartilage damage and ulcers

Ordering information

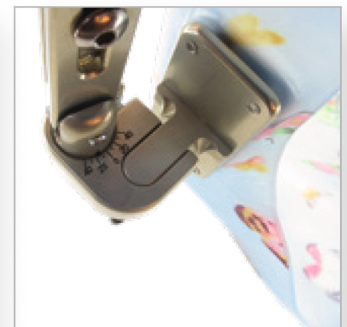
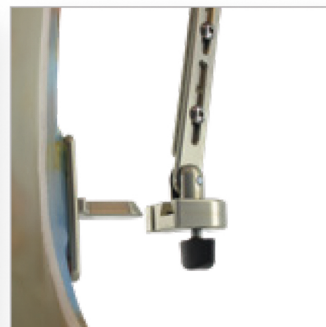
The MultiMotion dynamic hip abduction system is always assembled by two orthotic components - the corrective system joint and the abduction bars – and combined with the KEVO leg shells, they represent the complete hip abduction orthosis. Both orthotic components are available in sizes medium and large and require to be ordered separately.

Size chart – MultiMotion Dynamic Corrective Joints

Item number	UOM	Size	Bar width	Bar thickness	Joint weight	Housing diameter	Maximum spring load
MM04M-12	each	medium	12 mm	19 mm	125 g	36 mm	4,1 Nm
MM05M-16	each	large	16 mm	24 mm	268 g	50 mm	8,4 Nm

Size chart – MultiMotion Abduction Bars

Item number	UOM	Size	Body length
MM-HA-S	set	medium	< 105 cm
MM-HA-R	set	large	> 105 cm





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