

A woman with dark hair tied back, wearing a grey t-shirt, is using a grey mechanical device. She is looking towards the camera with a slight smile. The device has a large vertical panel on the left with a speaker grille and the word 'FREI' on it. Her arms are resting on a horizontal bar of the device. The background is a plain, light grey.

# FREI

**FACTUM<sup>®</sup> novus II**  
ANALYSIS AND TRAINING DEVICES

FACTUM<sup>®</sup> novus II



# FACTUM<sup>®</sup> novus II

- combination devices: simultaneous training of two muscle groups = space and time-saving
- hydraulic resistance is separately adjustable= unique modern technology
- concentric / concentric training
- combinable with software based test and training system
- Safety through movement can be terminated at any time
- very quiet, harmonious movements
- perfect for group and circuit training
- useable as standalone device as well
- the line comprises 9 devices





# ADVANTAGES OF FACTUM<sup>®</sup> NOVUS II DEVICES

## TOUCH SCREEN FOR EASE OF OPERATION

The resistance and seat height are manually adjusted on a large ITS touch screen with a clear layout. Lightly tapping the self-explanatory symbols is all you need to start training.

Correct training guaranteed: the equipment does not allow cheating. Only correctly performed movements are counted. A status bar indicates the optimum training speed while the person who is training adapts his or her movements, thereby maintaining an even rhythm from the first to the last repetition.

Changing settings is straightforward and training is extremely simple – this reduces costs, saves money and is particularly important in prevention or group circuit training.

## COMPUTER-ASSISTED TRAINING WITH THE CHIP-EI

Computer-assisted training with the CHIP-EI automatically adjusts the resistance and seat height. Just connect the CHIP-EI – the device adjusts itself just before the training begins.

The intuitive software takes over training control and analysis. Training plan development, maximum force measurement, the evaluation of force ratios and documentation are handled quickly and reliably on the PC. The therapist can optimise the use of time for customer support.

Sophisticated: you control three components of your training with one training system! Via the CHIP-EI and software, FACTUM novus II devices are easily administered and integrated with the GENIUS·ECO devices as well as FREI cardio equipment.





## COMBINATION DEVICES

Simultaneous agonist and antagonist training during a single exercise on one device! This is achieved in one fluid motion sequence without adjusting the device. That is effective training. You save space, time and energy. Important: the resistance for the respective training direction, for example abdominal or back training, can of course be adjusted separately. This ensures that the person training achieves optimum muscular balance.

## SAFE TRAINING

Our modern hydraulic resistance system does not use any weight plates. Training is concentric / concentric and the movement can be terminated at any point without weight resting on the person training. This healthy training is ideal for postoperative, pain and obese patients as well as older people.

## SPACE SAVER

Buy 9 – get 16! The 9 FACTUM novus II devices provide the performance and therapy options of 16 different training devices. Yet they fit in any practice easily thanks to their small and compact design. Where else can you find that?





## CIRCUIT TRAINING

Training made for fun! Many persons feel secure while training as being part of a group, with optimum support in therapeutically effective circuit training. The efficient use of personnel, offerings tailored to the needs of your customers and courses subsidised by health insurers: you can help and win!

## ATMOSPHERE

Training with FACTUM novus II equipment is impressively quiet. A calm atmosphere without stress or bothersome noise is established in the training facility. All movements are harmonious, gentle and balanced. Your clients do not feel stressed but relaxed while training.

## MEDICAL DEVICES

Training safety is particularly important for the wellbeing of your patients and customers. This is why FREI AG maintains a quality management system according to EN ISO 13485. The highest quality standards for fabrication in Germany assure your satisfaction.

# MODERNISE YOUR MEDICAL TRAINING THERAPY (MTT): WITH FACTUM<sup>®</sup> REHAB-CIRCUIT

FACTUM rehab circuit can be adapted easily to individual needs, for instance with cardio devices or functional exercises.

Areas of Application:

Orthopedics, physiotherapy, neurology, pain patients, sports rehabilitation

## YOUR BENEFITS

- Combination devices with training control: controlled processes save time and improve patient-pass
- Little maintenance and efficient deployment of personnel thanks to intelligent software and automated device setting
- Training documentation and measuring function according to quality management
- Additional income through prevention within the scope of intensive aftercare rehabilitation (IRENA)
- For settlement and electronic patient file german classification of therapeutical merits services are available immediately after training
- Existing HL7 interface; compatible with CIS system (customer information system)
- MTT becomes your figurehead

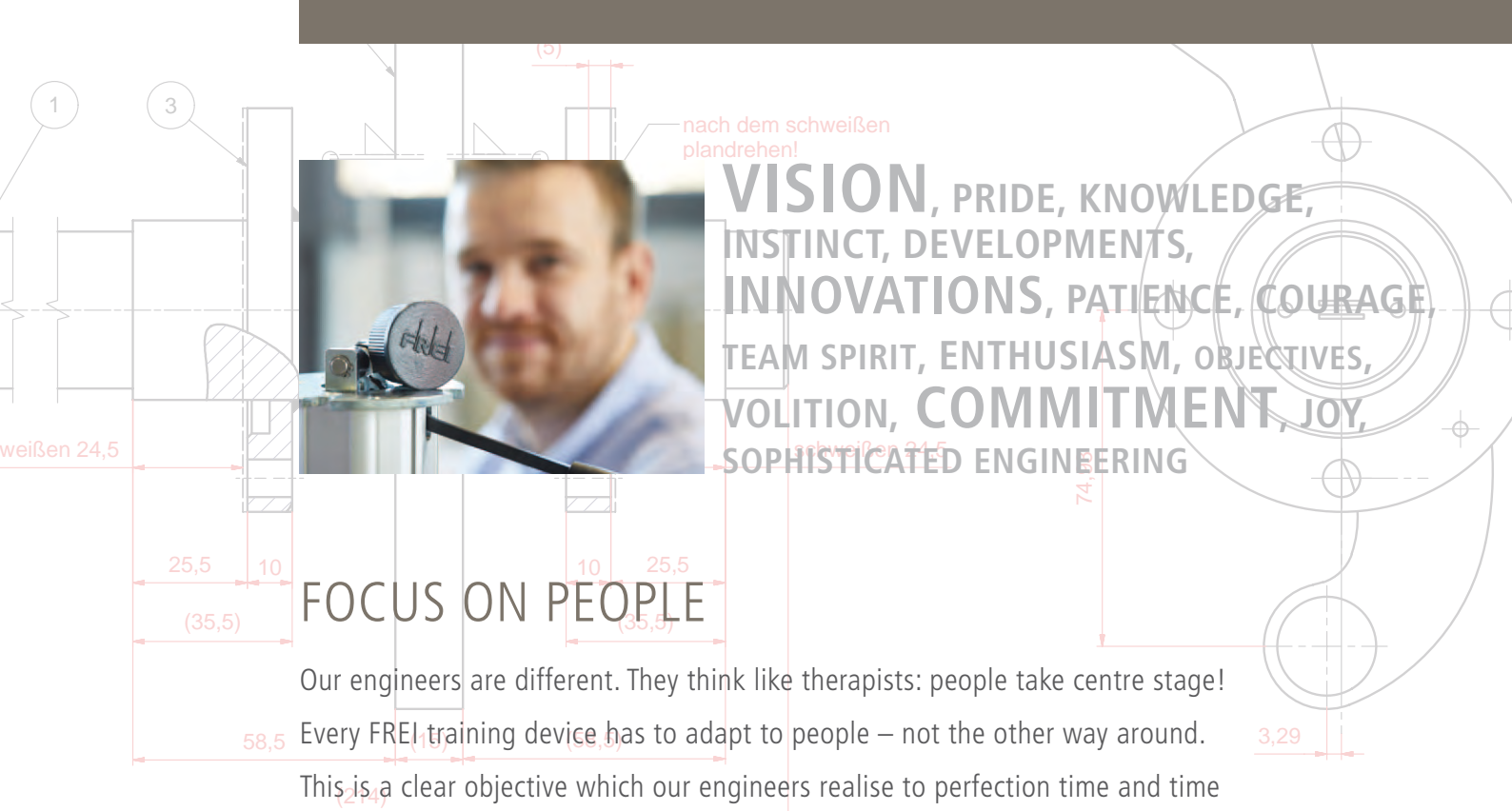


## FACTS

- Space-saving combination devices with automated training settings. Settings of resistors and seat heights are made automatically.
- Test- and training devices combined into one totally unique: in addition to training on each device force measurement can be carried out. Thereby disbalances can be determined.
- Highest safety due to the special and unique hydraulic training system without weight plates (concentric / concentric) the movement can be terminated at any point without weight resting on the person training = no risk of injury! Suitable for postoperative patients as well.
- Medical Products  
Every FREI device is an EN ISO certified medical product as EN ISO 13485 and is manufactured to the highest FREI quality standards in the Black Forest / Germany.







**VISION, PRIDE, KNOWLEDGE,  
INSTINCT, DEVELOPMENTS,  
INNOVATIONS, PATIENCE, COURAGE,  
TEAM SPIRIT, ENTHUSIASM, OBJECTIVES,  
VOLITION, COMMITMENT, JOY,  
SOPHISTICATED ENGINEERING**

## FOCUS ON PEOPLE

Our engineers are different. They think like therapists: people take centre stage!  
Every FREI training device has to adapt to people – not the other way around.  
This is a clear objective which our engineers realise to perfection time and time again.

## EXPERIENCE AND VISION

In order to design a whole new generation of training equipment like the FACTUM novus II line, two resources are particularly important: experience + vision. The ideas come from recognising and understanding the needs of our users. Our design team has access to an extensive knowledge pool as well: 20 years of medical training equipment made by FREI!

## SOPHISTICATED ENGINEERING

Our engineers are specialists in their field: electronics and mechanics. Teamwork results in revolutionary new technologies such as the FACTUM novus II resistance system. The knowledge, patience and energy of Black Forest inventors are essential here!



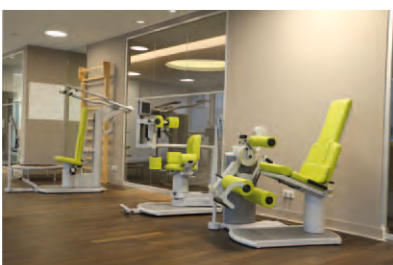


AOK Gesundheitszentrum, Villingen-Schwenningen

# REFERENCES



Klinik Bad Neuenahr



VitaPlus, Berlin



Vita Classica, Bad Krozingen



# FACTUM<sup>®</sup> novus II



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# FACTUM novus II LEG TRAINER





## LEG TRAINER WITH CONCENTRIC / CONCENTRIC FORM OF EXERCISE

This form of exercise creates a whole new training feeling while extending and flexing the legs. The person performing the exercise pushes off the foot plate and pulls him or herself towards it again. During this process, the feet are secured in a safe position by an ingenious holding device.

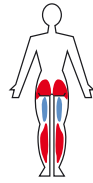
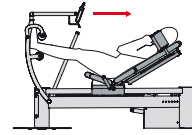
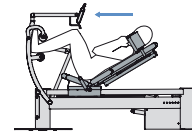


### FEATURES

- Combination device with separately adjustable hydraulic resistance for both directions of movement via the touch screen
- When training with the FREI CHIP-EI in combination with the analysis and training software (option), the resistance settings are adjusted automatically
- Safe training: when the movement is terminated at any point, there is no weight resting on the person training
- Training form: concentric
- Maximum force measurement
- One-button shoulder supports, individually adjustable
- Angle-adjustable backrest 20° / 30° / 40°
- With fully covered, low-noise, ball-bearing linear guide
- Moveable Genius Coach arm with handle for getting in and out comfortable
- Ideal entry thanks to the narrow linear guide and handle on the hand crank unit
- Hand crank unit for the foot retainer on the foot plate, which is easy to operate from the training position (protected by law)
- Biofeedback for optimum training
- 2 CHIP-EI units included
- Power supply 230 V
- Repositionable lordosis pad

### OPTIONS

- Analysis and training software
- Additional padding for shoulder pads



**■ Leg flexion**  
 (pulling toward the body / concentric)  
 Hip flexor (iliopsoas)  
 Hamstrings  
 Shin musculature (tibialis anterior)

**■ Leg extension**  
 (pushing away from the body / concentric)  
 Gluteal muscle  
 Quadriceps  
 Calf musculature

### RESISTANCE

50 – 900 N  
 Adjustable in 25 N increments

### DIMENSIONS

Height: 157 cm  
 Length: 190 - 215 cm  
 Depth: 76 cm  
 Weight: 300 kg

### COLOUR CHART

See cover

**MEDICAL DEVICE**

Changes reserved – proprietary design



# FACTUM novus II SHOULDER TRAINER





## SHOULDER TRAINING DELUXE

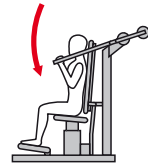
The training feeling of the shoulder trainer is incomparably comfortable. The training arm moves in perfect sequence. Entering and exiting are ingeniously simple: sit down and stand up unobstructed. The hip belt provides optimum support for high-resistance training. Even the handle width setting is individually adjustable thanks to the rotating grips.

### FEATURES

- Combination device with separately adjustable hydraulic resistance for both directions of movement via the touch screen
- Seat height adjustment using the touch screen
- When training with the FREI CHIP-EI in combination with the analysis and training software (option), the resistance and seat height settings are adjusted automatically.
- Safe training: when the movement is terminated at any point, there is no weight resting on the person training
- Training form: concentric
- Maximum force measurement
- Freely selectable starting position
- Rotating grips for individual handle width adjustment
- Repositionable lordosis pad
- Adaptation to the individual torque curve
- Biofeedback for optimum training
- 2 CHIP-EI units included
- Power supply 230 V

### OPTIONS

- Standing assist – handles to get in and out safely (not illustrated)
- Analysis and training software



deltoid muscle,  
triceps,  
trapezius,  
pectoral muscle

biceps,  
large back muscle

### RESISTANCE

25 – 900 N  
Adjustable in 25 N increments

### DIMENSIONS

Height: 147 - 184 cm  
Length: 197 cm  
Depth: 90 cm  
Weight: 225 kg

### COLOUR CHART

See cover

**MEDICAL DEVICE**

Changes reserved – proprietary design

# FACTUM novus II

## CHEST AND POSTURE TRAINER





## INTELLIGENT POSTURE TRAINING

Unique FREI patent: the independent system. Equal loads are applied independently to the right and left arms. Here the stronger side does not help out the weaker side in training! It is even possible to train just one arm with no load on the other arm!



## FEATURES

- Combination device with separately adjustable hydraulic resistance for both directions of movement via the touch screen
- Seat height adjustment using the touch screen
- When training with the FREI CHIP-EI in combination with the analysis and training software (option), the resistance and seat height settings are adjusted automatically
- Safe training: when the movement is terminated at any point, there is no weight resting on the person training
- Training form: concentric
- Maximum force measurement
- Independent transmission (protected by law): for independent training and one-sided exercises
- Freely selectable starting position
- Adjustable arm pad spacing
- Repositionable lordosis pad
- Adaptation to the individual torque curve
- Movement limitation to determine the radius of motion
- Biofeedback for optimum training
- 2 CHIP-EI units included
- Power supply 230 V



## OPTIONS

- Standing assist – handles to get in and out safely (not illustrated)
- Analysis and training software



pectoral muscle,  
anterior deltoid  
muscle

posterior deltoid  
muscle,  
rhomboid muscle,  
trapezius

## RESISTANCE

25 – 900 N  
Adjustable in 25 N increments

## DIMENSIONS

Height: 150 cm  
Length: 135 cm  
Depth: 110 - 130 cm  
Weight: 210 kg

## COLOUR CHART

See cover

**MEDICAL DEVICE**

Changes reserved – proprietary design

**FACTUM novus II**

ROWING MACHINE / CHEST PRESS







## PERFECT TRAINING PARTNER

Our rowing machine / chest press offers a unique, calm and flowing motion sequence – no repositioning or jerking. Perfect pivot point adaptation is possible thanks to the adjustable backrest. A clever detail: the large, angular grips offer virtually unlimited hand positions. Everyone can find an optimum training position!



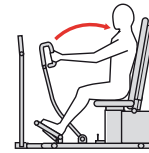
## FEATURES

- Combination device with separately adjustable hydraulic resistance for both directions of movement via the touch screen
- Seat height adjustment using the touch screen
- When training with the FREI CHIP-EI in combination with the analysis and training software (option), the resistance and seat height settings are adjusted automatically.
- Safe training: when the movement is terminated at any point, there is no weight resting on the person training
- Training form: concentric
- Maximum force measurement
- Freely selectable starting position
- Repositionable lordosis pad
- Adaptation to the individual torque curve
- Biofeedback for optimum training
- 2 CHIP-EI units included
- Power supply 230 V



## OPTION

- Analysis and training software



biceps,  
pectoral muscle,  
deltoid muscle



trapezius,  
deltoid muscle,  
large back muscle,  
triceps,  
rhomboid muscle

## RESISTANCE

25 – 900 N  
Adjustable in 25 N increments

## DIMENSIONS

Height: 135 cm  
Length: 138 cm  
Depth: 86 cm  
Weight: 210 kg

## COLOUR CHART

See cover

**MEDICAL DEVICE**

Changes reserved – proprietary design



# FACTUM novus II

## ABDOMINAL / BACK TRAINER



illustration with option standing assist



## HARMONY IN BALANCE

The abdominal / back trainer maintains a balance of power for training that is gentle on the spine, which means no spinal compression. The freely mounted training arm closely follows the movements without pressure. Thereby the padded armrests ensure an optimal position of the shoulders during the training.



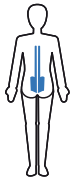
## FEATURES

- Combination device with separately adjustable hydraulic resistance for both directions of movement via the touch screen
- Seat height adjustment using the touch screen
- When training with the FREI CHIP-EI in combination with the analysis and training software (option), the resistance and seat height settings are adjusted automatically
- Safe training: when the movement is terminated at any point, there is no weight resting on the person training
- Training form: concentric
- Maximum force measurement
- Moveable shoulder pad with ball-bearing linear guide to eliminate spinal compression in flexion
- Freely selectable starting position
- Pelvic restraint for stable positioning of the person training
- Padded armrests
- Adaptation to the individual torque curve
- Movement limitation to determine the radius of motion
- Biofeedback for optimum training
- 2 CHIP-EI units included
- Power supply 230 V



## OPTIONS

- Standing assist – handles to get in and out safely (not illustrated)
- Analysis and training software
- Additional padding for shoulder pads



straight abdominal muscle

back extensor, psoas muscle

## RESISTANCE

25 – 900 N  
Adjustable in 25 N increments

## DIMENSIONS

Height:	110 - 125 cm
Length:	140 - 150 cm
Depth:	110 cm
Weight:	240 kg

## COLOUR CHART

See cover

**MEDICAL DEVICE**

Changes reserved – proprietary design

# FACTUM novus II TORSO ROTATOR





## CONTROLLED ROTATION

Our torso rotator is a special compact device: the shoulder section is not secured from above. This means the person training has to stabilise themselves. For older people in particular, this significantly improves acceptance. Nobody feels trapped in the device. At the same time the easy to fit basin rests in combination with the lordosis pad maintain a secure hold for the hip.



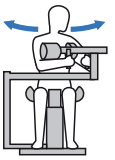
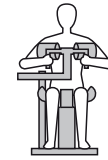
## FEATURES

- Combination device with separately adjustable hydraulic resistance for both directions of movement via the touch screen
- Seat height adjustment using the touch screen
- When training with the FREI CHIP-EI in combination with the analysis and training software (option), the resistance and seat height settings are adjusted automatically
- Safe training: when the movement is terminated at any point, there is no weight resting on the person training
- Training form: concentric
- Maximum force measurement
- Freely selectable starting position
- 2 adjustable pelvic supports for secure positioning
- Footrest for fixing the position
- Height and depth-adjustable chest pad
- Adaptation to the individual torque curve
- Movement limitation to determine the radius of motion
- Biofeedback for optimum training
- 2 CHIP-EI units included
- Power supply 230 V

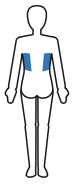


## OPTION

- Analysis and training software



diagonal abdominal muscles



intercostal muscle

## RESISTANCE

25 – 900 N  
Adjustable in 25 N increments

## DIMENSIONS

Height: 133 - 140 cm  
Length: 130 cm  
Depth: 77 - 112 cm  
Weight: 165 kg

## COLOUR CHART

See cover

**MEDICAL DEVICE**

Changes reserved – proprietary design

# FACTUM novus II LATERAL TRAINER







## HARMONIOUS SIDE CHANGE

Our lateral trainer sets itself apart with shoulder pads that move far apart, among other features. This makes getting in and out very easy and comfortable. The individually adaptable thigh pad provides optimum support when bending sideways.



## FEATURES

- Combination device with separately adjustable hydraulic resistance for both directions of movement via the touch screen
- Seat height adjustment using the touch screen
- When training with the FREI CHIP-EI in combination with the analysis and training software (option), the resistance and seat height settings are adjusted automatically
- Safe training: when the movement is terminated at any point, there is no weight resting on the person training
- Training form: concentric
- Maximum force measurement
- Freely selectable starting position
- Side arm pads, adjustable in width for narrow and wide shoulders via extremely easy to operate linear guides
- Adjustable thigh pad for secure support
- Adaptation to the individual torque curve
- Movement limitation to determine the radius of motion
- Biofeedback for optimum training
- 2 CHIP-EI units included
- Power supply 230 V



## OPTION

- Analysis and training software



diagonal abdominal muscles,  
psoas muscle

## RESISTANCE

25 – 900 N  
Adjustable in 25 N increments

## DIMENSIONS

Height: 132 cm  
Length: 110 cm  
Depth: 69 - 80 cm  
Weight: 185 kg

## COLOUR CHART

See cover

**MEDICAL DEVICE**

Changes reserved – proprietary design



# FACTUM novus II

## KNEE FLEXOR / EXTENSOR





## CLEVER COMBINATION

The knee flexor / extensor does precision work. Weight fine-tuning is made possible by the concentric resistance system. For certain indications, training in the closed chain is possible using the footrest pendulum. The hand crank to adjust the length of the training arm is extremely comfortable and easy to operate.



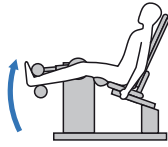
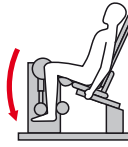
## FEATURES

- Combination device with separately adjustable hydraulic resistance for both directions of movement via the touch screen
- Seat back adjustment by using the touch screen
- When training with the FREI CHIP-EI in combination with the analysis and training software (option), the resistance and seat back settings are adjusted automatically
- Safe training: when the movement is terminated at any point, there is no weight resting on the person training
- Training form: concentric
- Maximum force measurement
- Freely selectable starting position
- Hand crank for comfortable training arm length adjustment and thigh pad width adjustment
- Footrest pendulum for exercises in the closed chain - a FREI invention
- Thigh fixation with adjustable pressure roller
- Repositionable lordosis pad
- Adaptation to the individual torque curve
- Movement limitation to determine the radius of motion
- Biofeedback for optimum training
- 2 CHIP-EI units included
- Power supply 230 V



## OPTION

- Analysis and training software



anterior thigh muscles  
quadriceps



posterior thigh muscles

## RESISTANCE

25 – 900 N  
Adjustable in 25 N increments

## DIMENSIONS

Height:	137 cm
Length:	127 - 144 cm
Depth:	105 cm
Weight:	235 kg

## COLOUR CHART

See cover

**MEDICAL DEVICE**

Changes reserved – proprietary design

**FACTUM novus II**

ABDUCTOR / ADDUCTOR FUNCTIONAL





## ASYMMETRIC TORQUE ADJUSTMENT!

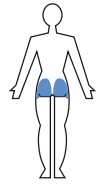
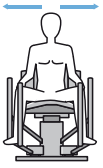
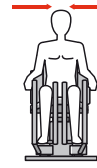
The Adductor / Abductor has a patented asymmetric torque alignment and a horizontal adjustment of the knee padding to enable physiologically right training of the hip musculature. This comfortable training sensation is unparalleled. The convenient setting options for the backrest and starting position permit individually coordinated training.

## FEATURES

- Combination device with separately adjustable hydraulic resistance for both directions of movement via the touch screen
- When training with the FREI CHIP-EI in combination with the analysis and training software (option), the resistance settings are adjusted automatically
- Safe training: when the movement is terminated at any point, there is no weight resting on the person training
- Training form: concentric
- Maximum force measurement
- Freely selectable initial position
- Asymmetric torque adjustment (protected by law)
- In addition, via the asymmetrical rod the knee pads can be adjusted horizontally to small or large exercise persons (protected by law).
- Angle-adjustable head and backrest
- Easy to get in and out thanks to the training arms which open wide and the moveable Genius Coach arm with standing assist
- Repositionable lordosis pad
- Biofeedback for optimum training
- 2 CHIP-EI units included
- Power supply 230 V

## OPTION

- Analysis and training software



abductors,  
adductors

gluteal musculature

## RESISTANCE

25 – 900 N  
Adjustable in 25 N increments

## DIMENSIONS

Height:	140 cm
Length:	125 - 165 cm
Depth:	80 - 170 cm
Weight:	145 kg

## COLOUR CHART

See cover

**MEDICAL DEVICE**

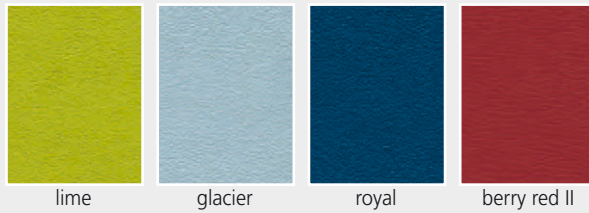
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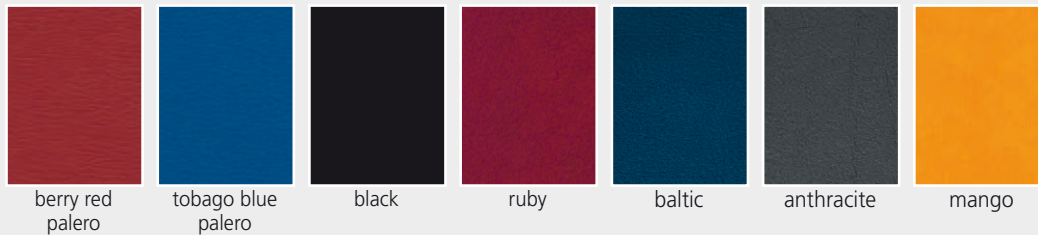
# PAD COLOURS

Additional colours available. We will gladly provide you with original samples by request. Colour deviations due to printing technology are possible.

## Group 4 pandoria plus



## Group 5 palma



## FRAME COLOUR



FREI AG ACTIVE REHABILITATION SYSTEMS

Am Fischerrain 8 | D-79199 Kirchzarten | Fon 07661 / 93 36 0 | Fax 07661 / 93 36 50  
info@frei-ag.de | www.frei-ag.de

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FREI SWISS AG ACTIVE REHABILITATION SYSTEMS

Seestrasse 115 | CH-8800 Thalwil | Fon 043 / 811 47 00 | Fax 043 / 811 47 01  
info@frei-swiss.ch | www.frei-swiss.ch

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