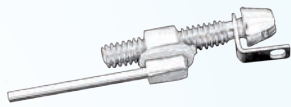


# UNIQUE ADENTA APPLIANCES



The HYCON™ Device



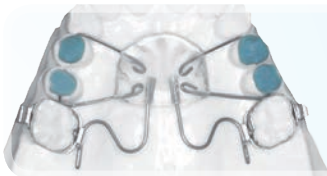
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# The HYCON® Device

Fast, precise, successful space closure and midline corrections made easy!



## Eliminating guesswork and stress when closing spaces.

*Amount of force, the length of force application, the degree of archwire deflection, the amount of friction, the stress of closing loops, the difficulty in handling....space closing was a long list of difficult, stressful unknowns.*

The challenge to eliminate this long list of problems was brought to me by Dr. Winifried Schütz. His dream appliance consisted of a post and screw and presented a truly technical-mechanical challenge.

The HYCON® Device is designed specifically to provide the optimal metabolic state for safe, fast and predictable tooth movement. To achieve adequate tissue reaction very little force is needed, however with the common space closing techniques, additional force is always required to overcome the friction within the mechanical system. The mechanics of a screw can be precisely measured - the size of the threads is directly proportional to the movement of the screw. The amount of force generated by the screw is adequate enough to overcome any amount of frictional forces, but does not generate any additional dynamic force, providing the perfect stimuli for tooth movement.

Once we understood this principal, exact screw thread size was calculated, now we were able to mathematical calculate the distance the screw travelled, setting distance as our known calculator for safe, efficient and predictable tooth movement, putting the orthodontist in control of treatment.

### Successful

*"My colleagues tell me that they are able to treat cases with the HYCON® device that before would have been beyond therapy. I close all my spaces with the HYCON® – it has never failed me." Dr. Schütz, Germany*

### Fast

The HYCON® is activated in small steps at intervals that create an intermittent tooth movement. This allows recovery of the tissue in-between activations, and provides the physiological stimulus for the alteration processes. This perfect balance provides a high efficiency in tooth movement

### HYCON® Tube

Post inserted into the auxiliary-tube of your double buccal tube.

### Painless

Activated in small steps at intervals best suited to maintain adequate blood supply, closely emulates ideal bodily movement and produces pain free space closure for the patient

### HYCON® Clip On

Clips on directly to your archwire (perfect when no auxiliary tube is available)

### Precise

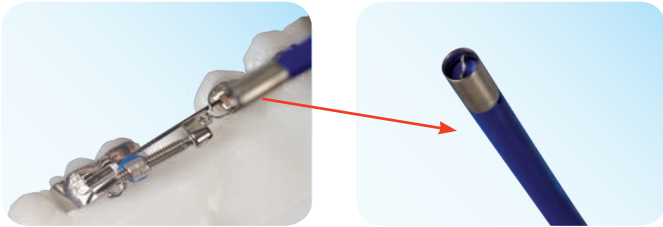
The movement of the tooth is determined solely by the advancement of the thread of the screw. The thread has been precisely calculated to a pitch of 0.014", now you can precisely calculate this pitch by number of turns to precisely advance the screw and in-turn close the space with complete understanding and control

### Easy

Easily installed at the beginning of space closure with two options to choose from. Can be used with or without an auxiliary tube on your buccal tube. Also easily activated, a small screwdriver with a uniquely design safety head is simply used to turn the screw



### Eliminate the uncertainties with space closure



The force necessary to move a tooth must overcome the friction between arch-wire and bracket, and also must stimulate tissue response.

With elastic forces the amount of stretching or deflection is proportional to the total force required. In order to achieve the appropriate amount of force, the activation length of an elastic mechanism has to be far greater than the periodontal gap.

In contrast to this the threaded screw-type mechanism allows the separation of force and distance. The movement of the tooth is determined solely by the advancement rate of the thread and the amount of activation turns.

Being independent of elastic forces it is thus possible to exert a very precise activation at a fairly high force level, but at a very short and controlled distance.

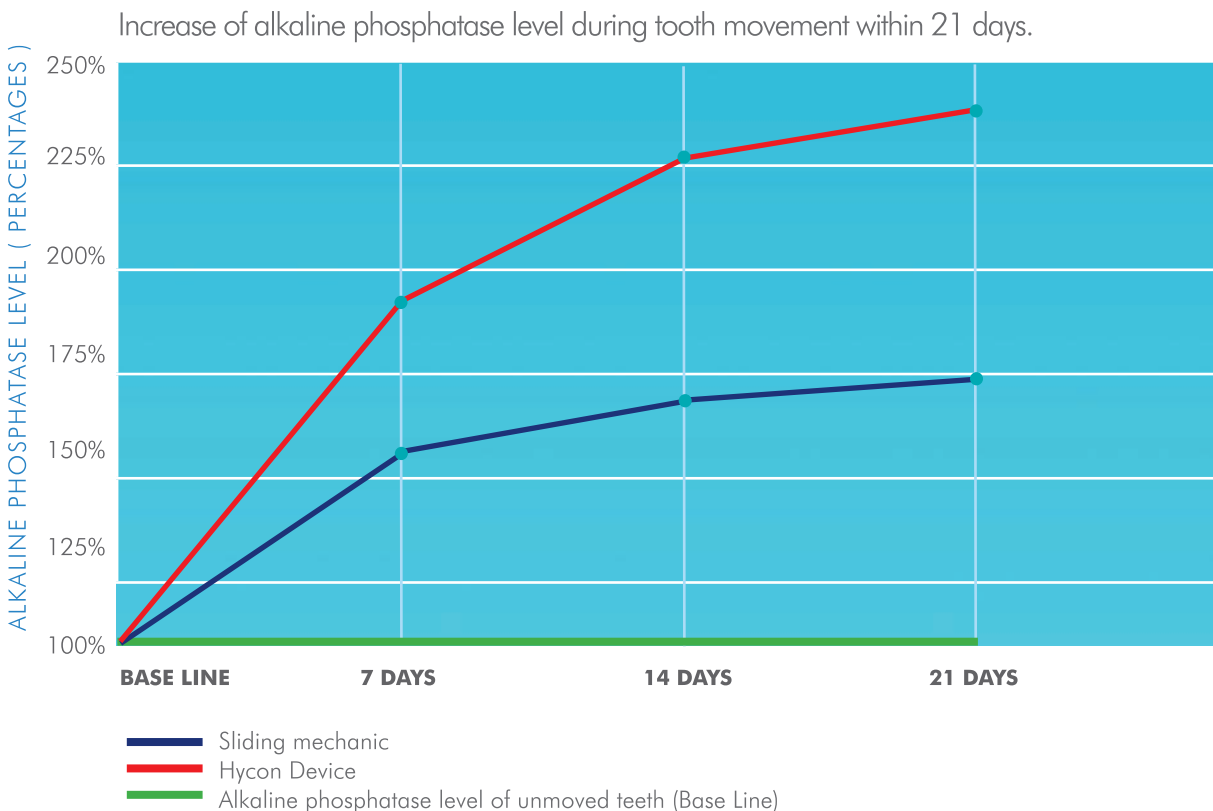
### Speed up treatment – optimal recovery of the periodontal tissue

The HYCON® is activated in small steps at intervals which can be determined according to the condition of the periodontal tissue. By creating intermittent tooth movement, the HYCON® allows recovery of the tissue in between activation steps. In contrast to the characteristics of elastic elements of force, where the power being generated is proportional to the activation stretch - a screw driven mechanism enables the separation of activation distance

and force. The screw’s force only plays a role insofar as being adequate enough to overcome frictional forces. After the adjustment of the HYCON®screw the appliance is once again passive. There are no existing elastic forces, what remains from the activation is a slight increase in “tissue pressure”. This is the physiological stimulus for the desired alteration processes.

### Alkaline phosphatase study, used as an indicator substance, increased 140%.

The alkaline phosphatase, bone specific also known as bones alkaline phosphatase BAP, is an enzyme that is active in the alkaline milieu. It is generated as a by-product of bone synthesis, produced by the osteoblasts and additionally serves as a marker for bone regeneration processes. From this Prof. Dr. Anmol Khala concluded, that out of the quantity of measured alkaline phosphatase the activity of the bone metabolism and consequently the rate of bone turnover can be determined.



Data reported by Dr. A. Khala 2005.

His experiment consisted of measuring the concentration of alkaline phosphatase in the gingival crevicular fluid of the shifted tooth. Here, the teeth - divided into two groups – were moved by different mechanisms. Group 1 was drifted by sliding mechanics, while with group 2 the HYCON® was put into action. After a 3 week treatment period, there was a significant difference in the amount of alkaline phosphatase. Based on the phosphatase level of unmoved teeth, set at 100 percent, a considerable increase could be discovered in both groups. While in group 1 there was an increase of 65 percent, in group 2 (the Hycon group) the measured level of increase was found to be approximately 140 percent. This indicates that group 2 had the highest metabolic activity.

Consequently, the largest rate of bone turnover and hence quickest tooth movement took place here.

### Clinical Case Class I dental pattern – Class II skeletal pattern

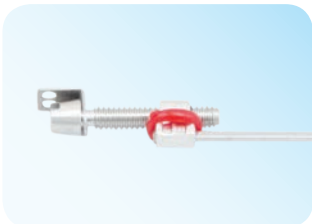


This 30.4 year old male presented with a Class I dental pattern and a moderate Class II skeletal pattern. He showed severe crowding in his lower anterior segment. Four first bicuspid were extracted. During treatment space closure occurred routinely in the lower arch however was slower in the

upper arch. The HYCON® device was used in the upper arch to efficiently complete space closure. Photos showing space closure with the HYCON® with a .019 x .025 stainless steel wire. Space closure took 3 months.

case by: Dr. Schütz

#### HYCON® Tube



Designed specifically with a support-wire which is inserted into the auxiliary-tube of the molar band from the mesial side and bent back.

A double buccal tube is required for the use of this appliance.



Holding pin of the HYCON® Tube is inserted into auxiliary tube on your buccal tube.

#### HYCON® ClipOn



If a double buccal tube is not available, the HYCON® ClipOn simply clips onto the archwire.



HYCON® self-ligating locking clip is shown in open state, revealing the HYCON's slot.

#### HYCON® order info

Item #	.018	.022	Sales Unit
HYCON Tube*	HCN-018-5	HCN-022-5	5 Patient Kit
HYCON ClipOn	HCNC-018-5	HCNC-022-5	5 Patient Kit

\*Available in .018" slot technique with a .018x.025 support wire

\*Available in .022" slot technique with a .021x.025 support wire



Close the HYCON® ClipOn by applying pressure with the pliers.

If the 1st and 2nd molars are banded place the HYCON® ClipOn distally to the 1st molar.

If the 2nd molar is not banded place the HYCON® ClipOn mesially to the first molar



# EASY-WAY-COIL SYSTEM®

A proven technique for effective alignment of impacted incisors, canines, and premolars

- Zero inflammatory reactions recorded
- Zero loosening of bonded attachment
- Zero breakages recorded

(Clinical research conducted by Dr. Schubert, Germany)

*"Invented by Dr. Schubert, engineered by adenta"*



EASY-WAY-COILSYSTEM® for lingual and buccal treatment clinically reliable, efficient, easy to use and economical system for the alignment of impacted and ectopic teeth.



tension spring which is pivot-mounted to a lingual button with a bonding base. The appliance is activated by systematically shortening the spring. It is reliable and demonstrates a constant application of force throughout the treatment procedure, including stable maximum anchorage.

Many different traction appliance options are available for the task of aligning the ectopic or impacted tooth. The forces in some of these appliances are generated by elastics. The quality of the material of elastics, elastic chains or an elastic rubber thread makes frequent replacement necessary for the purpose of re-activation. Lever designs are highly elastic and supply effective force for a relatively long period of time, but they are easily damaged, rather uncomfortable for patients, and make oral hygiene more difficult. The EASY-WAY-COIL SYSTEM® consists of a stainless steel

Pivot-mounted button



Bonding base button



Space maintaining spring



Chosen if force direction is 90° to the bonding surface



Buccal treatment steps



“Choosing the right force minimizes root damages and reduces treatment time!”

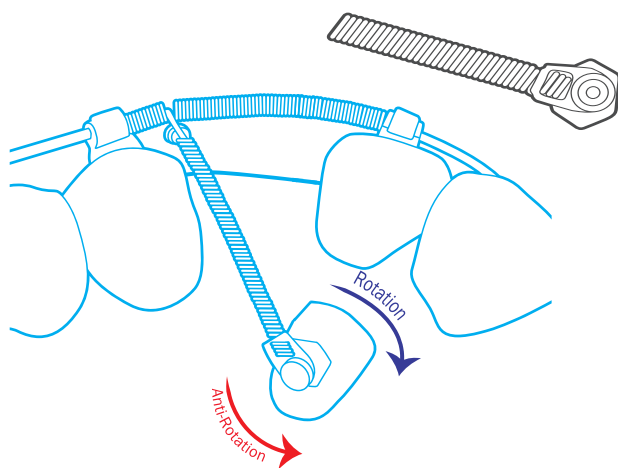
Dr. Schubert, Germany

Lingual treatment option



Dr. Michael Schubert, Germany  
Inventor of the EASY-WAY-COIL®

MULTI DIRECTIONAL With the EASY-WAY-COIL® you can choose which direction to move the tooth



Activation Distance = 2mm

Optimum Force = 32 cN

- Variable direction of traction
- Simple re-activation
- Precisely quantified amount of force
- High degree of comfort for patients
- Clinically reliable & economical
- Constant application of force
- Unilaterally or bilaterally
- No undesirable side effects
- Can be used with lingual and buccal brackets
- Long acting activation
- Can treat both lingual and buccally impacted teeth

Easy to use →

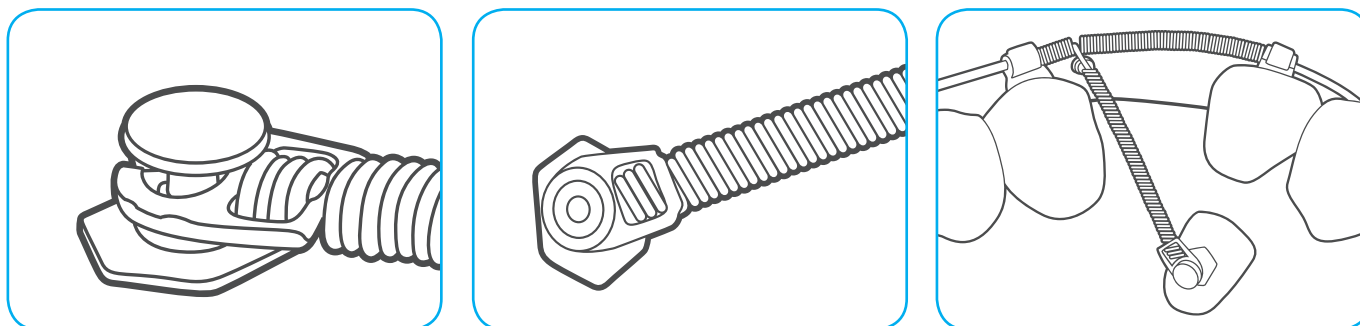
Finish quickly →

Clinically reliable →

Predictable



“New traction appliance with no undesirable effects.” (JCO 2008)



The advantages of using a stainless steel spring vs. a Niti spring can be seen clearly throughout all our clinical testing. Couple this high functioning spring with a custom designed button and you have the perfect traction appliance.

#### Sturdy and stable

Stainless steel springs permit accurate and sturdy formation of the eyelet, with no introduction of rotation and allows simple and easy re-activation later in treatment.

#### Prevents undesired rotation of spring

An experimental study confirmed that the steel spring's rigidity has an anti-rotation effect and can thus generate a counter-torque of 0.75 N mm, against the strong rotation of a palatally ectopic cuspid.

#### Repels Mucosa and scar tissue

Mucosa or scar tissue can grow in between the separated spiral winding of a NiTi spring, this prevents the spring from contracting, and thus making it impossible to estimate how much traction force is effectively being applied to the tooth. Activation with the steel spring is low, the “tube from” is retained and mucosa or scar tissue is easily repelled. This allows the spring to contract and slide easily with little friction.

#### Prevents inflammatory reactions

Since 2008 the EASY-WAY-COIL® system, no patient has suffered inflammatory reactions in the oral mucosa adjacent to the traction spring during treatment.

#### Intermittent forces

The EASY-WAY-COIL® is activated in small steps in 4 week intervals. As the tooth reaches the position needed for re-activation, this in turn creates an interval of tooth movement and allows recovery of the tissue in between activation steps. These inter-

mitting forces allow permanent blood supply to all surrounding structures, allowing the optimum physiological stimulus for the desired alteration processes.

#### Long activation

Activations are performed at 4-week intervals.

#### Constant precise force during activation

The outer diameter of the spring is 1.2 mm and the inner diameter 0.75 mm, this generates an average force of 32 cN over an active length of 2 mm. This repeatable value of force can be seen throughout treatment, including stable maximum anchorage.

#### Simple re-activation and variable direction

Re-activation is fast and easy.

1. Cutting of the eyelet
2. Shorten spring
3. Bend new eyelet
4. Ligate eyelet to archwire/space maintaining spring
5. As needed the traction direction can be modified easily by simply ligating the eyelet to the desired angle onto the space maintaining spring.

#### EASY-WAY-COIL SYSTEM order info

Item	Sales Unit
EWCS1	1 Patient Kit – 1 EASY-WAY-COIL spring 1 Space maintaing spring
EWCS5	5 Patient Kit – 5 EASY-WAY-COIL springs 5 Space maintaing springs
EWCS1-90	1 Patient Kit – 90° version 1 EASY-WAY-COIL spring 1 Space maintaing spring
EWCS5-90	5 Patient Kit – 90° version 5 EASY-WAY-COIL springs 5 Space maintaing springs

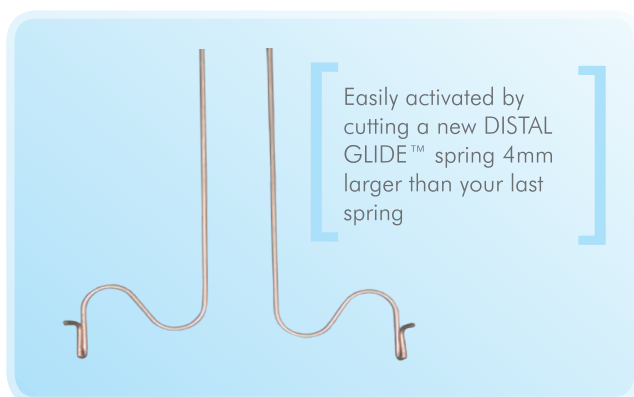


# DISTAL GLIDE™ - effective distalization



- Pre-manufactured distal glide spring for consistent precision
- CNA Beta III Nickel-free combines wires which offers excellent resiliency when compared to Stainless Steel
- Easy oral hygiene
- Easily removed for activation outside the patients mouth
- Full control over torque, tip and rotation
- Clear acrylic Nance-plate for better visual control of hygiene and possible infections

The DISTAL GLIDE™ (modified Pendulum) has proved to be an incredibly efficient and predictable source of non-compliant Class II correction. Our aim was to develop the simplest, easy to handle appliance that would allow the patient to maintain good oral hygiene, improve patient comfort, ease of appliance placement and activation, and obtain the most effective distalization.



**Quality** - Adenta engineered an appliance to provide increased stability and improved overall response. The distalizing springs are of high quality Nickel-free Beta Titanium

**Pre-engineered** - The distalizing springs are fabricated by machine with absolute precision. Each spring is identical to each other, and provides the practitioner with consistent forces.

**Removable** - To reactivate the old Pendulum appliances intraorally was cumbersome and was uncomfortable for the patient. The Distal Glide springs are inserted into tubes located inside the acrylic plate and into the lingual sheath, this provides a sturdy support, and can easily be removed for reactivation.

**Hygienic** - As the distalizing springs are easily removed, this provides easier access for the hygienist.

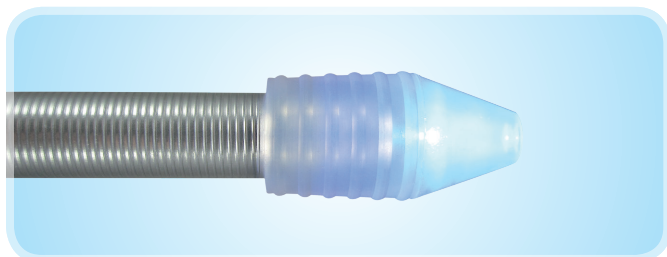
## Distal Glide™ order info

Item	Article Description
DP-DGP-Info	ADENTA Distal Glide Information
DP-DGP-PR	Distal Glide - Office Kit, 10 distalizing
DP-DGP-ST	Distal Glide - Starter Kit, 5 distalizing



# STARLIGHT EXPRESS™

Clear button and clear aligner abutment former with light-polymerisation in pencil-size



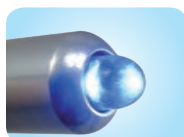
This small light-cure pen forms a tooth-colored button quickly and economically.

Simply fill the preformed tip with your light-curing bonding or resin material in syringes and light-cure for a button that is virtually invisible.

## All advantages at a glance



- Compact pencil size
- Light weight



- Battery powered for convenience
- Fast and easy to use

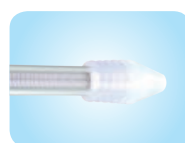


- Clear button former
- Clear aligner abutment former
- Can be also used on most standard light-curing lamps



- Fast curing time
- Economical

## User Instructions



Simply push the button former on the top of the Starlight Express or on your own light curing lamp.



Fill the preformed abutment former with your light-curing bonding or resin material in a syringe.



Etch the tooth as usual.



Press the Starlight Express™ lightly on the relevant tooth and cure according to the bonding/resin material instructions.



After curing remove the Starlight Express™ carefully with a small tipping motion and reveal your tooth colored button or aligner abutment bonded and ready to use.



## Starlight Express order info

Item #	Article Description	Sales Unit
DP-Starlight Kit	Starlight Express Starter Kit with 2 button formers	1 Kit
DP-Star-Lamp	Starlight Light-Polymerisation Lamp	1 pc
DP-Star-Button	Starlight Express Button Former	1 pc
DP-Star-Clear Aligner	Starlight Express Aligner Abutment Fomer	1 pc



# BAXMANN MINI TELESCOPE™

The new generation of Class II correction - comfort, strength and control with simple installation and activation

*Dr. Baxmanns' Mini telescope is designed specifically to reduce and eliminate common problems experienced during Class II correction -undesirable intrusive molar forces, undesired protrusion, lack of control, breakage issues, complicated installations and activation:*

With all flexible common Class II appliances the patient can easily hold the lower jaw backwards, this problem not only deforms or breaks the appliance, but also introduces undesirable intrusive forces on the molars. The BMT™ has been designed to control the patients lower jaw movement, as this jaw can no longer be held backwards, this eliminates the undesirable intrusive forces on the molars. The orthodontist can choose two options to best suit the patients needs. A rigid appliance, or as a soft bouncing appliance - adding the spring offers a softer more comfortable treatment, and the ability to overcome the differences in asymmetric cases easily. The force applied with either option still applies a rigid force and easily controls the patients jaw movement.



The BMT™ is designed specifically to attach easily and quickly to a headgear tube or lip bumper tube. Directly attaching to the buccal tube, eliminates uncontrolled forces being transmitted to the main arch, creating undesirable protrusion. Attachment is fast and easy as this system requires no prior lab work.

**Comfortable**

Smooth, ultra low profile body for patient comfort - perfect for adults and children

**Easy activation**

Springs or distance rings are used for fast and easy activation

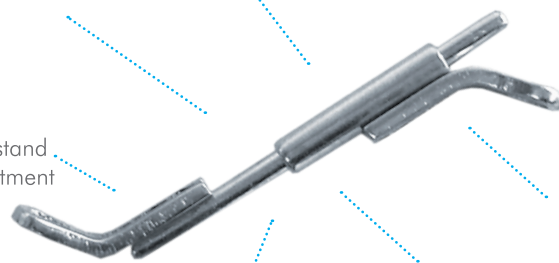


**Lateral movement**

Uniquely designed appliance allows for lateral movement of the lower jaw

**Durable**

Laser welded components can withstand the repeated rigours of Class II treatment



**Mono & bilateral**

Use it on both sides or only on one side

**One size**

No lefts or rights - no need to stock different sizes or sides

**Easy installation**

No lab work needed simply fix directly into either a lip bumper tube or headgear tube

**Buccal or lingual**

Can be used with buccal and lingual appliances



**Prof. Dr. Martin Baxmann**  
 Winner of our SMART INNOVATION AWARD  
 For outstanding innovation in the treatment of Class II correction

Item #	Article Description	Sales Unit
BMT-10	Baxmann Mini Teleskop Office Kit	10 pcs
BMT-2	Baxmann Mini Teleskop Starter Kit	2 pcs
BMT-SP	Baxmann Mini Teleskop Spring 100 mm	
BMT-T	Baxmann Mini Teleskop Distance Rings	5 pcs

# FLEX DEVELOPER™

## Durable and effective Class II Correction

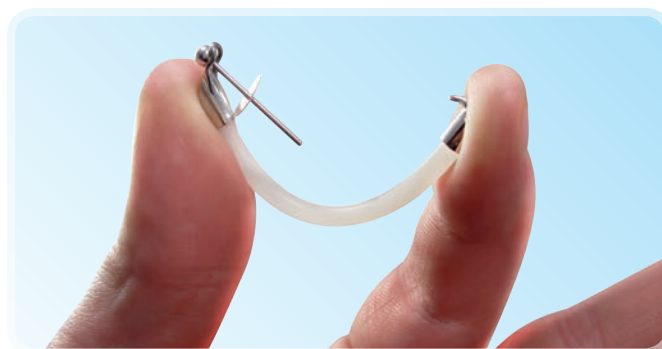
“Even after continuous use for many months there is no breakage or loss of power.”

Dr. Winsauer, Austria



- Reliable
- Highly durable and flexible
- Eliminates breakage issues
- More comfortable / slim patient profile
- No loss of power
- Easy to install
- Customize your force per patient
- Customize your length per patient
- No storing of different sizes
- Correct Class II and use it for 7 more applications

The FLEX DEVELOPER™ is designed to deliver a reliable force between mandible and maxilla. The power derives from an elastic mini rod that can be thinned to enable a range of treatment forces. The force ranges from 1,000 grams to as little as 50 grams (10 – 0,5 N) and is individually adjusted for the perfect fit for each patient. This one of a kind elastic rod is highly durable, able to withstand the rigorous forces of treatment while maintaining its power and elasticity.



## 2.5 mio cycles - Unbreakable and long lasting elasticity

The FLEX DEVELOPER™'s mini rod was put through an Un test (in vitro). This test was stopped after 2,5 Mio. cycles, as practically no changes in the force deliverance rate could be observed. This

equals 500 days of treatment time, if a bite rate of 5,000 cycles per day is estimated. Clinical testing proved optimal endurance and strength and has set a new benchmark for inter-maxillary force deliverance.

### Length and force adaptability



The ability to customize the mini rod to your patients' needs eliminates your need to stock many different sizes and forces. Length can be customized quickly, just measure and cut. Force can be customized easily by reducing the diameter of the mini rod, producing a range of forces from 1,000 grams to as low as 50 grams.

### Reducing undesired effects



In contrast to effect of Class II mechanics with elastics' where the forces increase and become more vertical with increased mouth opening (undesired), the FLEX DEVELOPER™ only produces a horizontal force just before tooth contact. The vertical force is negligible small. When the mouth is opened, it slides back passively, without force or side effect.

### More comfortable and a slim patient profile

The FLEX DEVELOPER™'s mini rod offers the added benefits of streamlining this appliance, less material and increased ultra-smooth comfort of the appliance.

#### Applications

- Distalising upper molars (HG-like)
- Mesialising lower molars or premolars (Aplasia or after extractions)
- CI II-corrections between upper and lower dental arch
- Helping to grow the mandible forward
- Retrusion of upper incisors
- Protrusion of lower incisors
- Midline corrections (unilateral application)
- Unilateral dental CI II correction (unilateral application)
- Space closure (even single-sided) in the mandible (aplasia)

#### Unique features

- Reliable
- Highly durable
- Length adaptable to individual need
- Force adaptable to individual need
- Lasting elasticity
- Relockable anterior piece
- Measuring gauge for quick installation
- Can be combined with lip bumper or headgear
- Securing mini disc for pin safety
- Auxiliary bypass arch pre-bent for precise function
- Small and streamline – more comfortable
- Easy to install



#### FLEX DEVELOPER™ order info

Item #	Description	Sales Unit
FDS-KIT	FLEX DEVELOPER Starter Kit 5 Patients	1 kit
FDA-KIT	FLEX DEVELOPER Refill Kit 5 Patients	1 kit

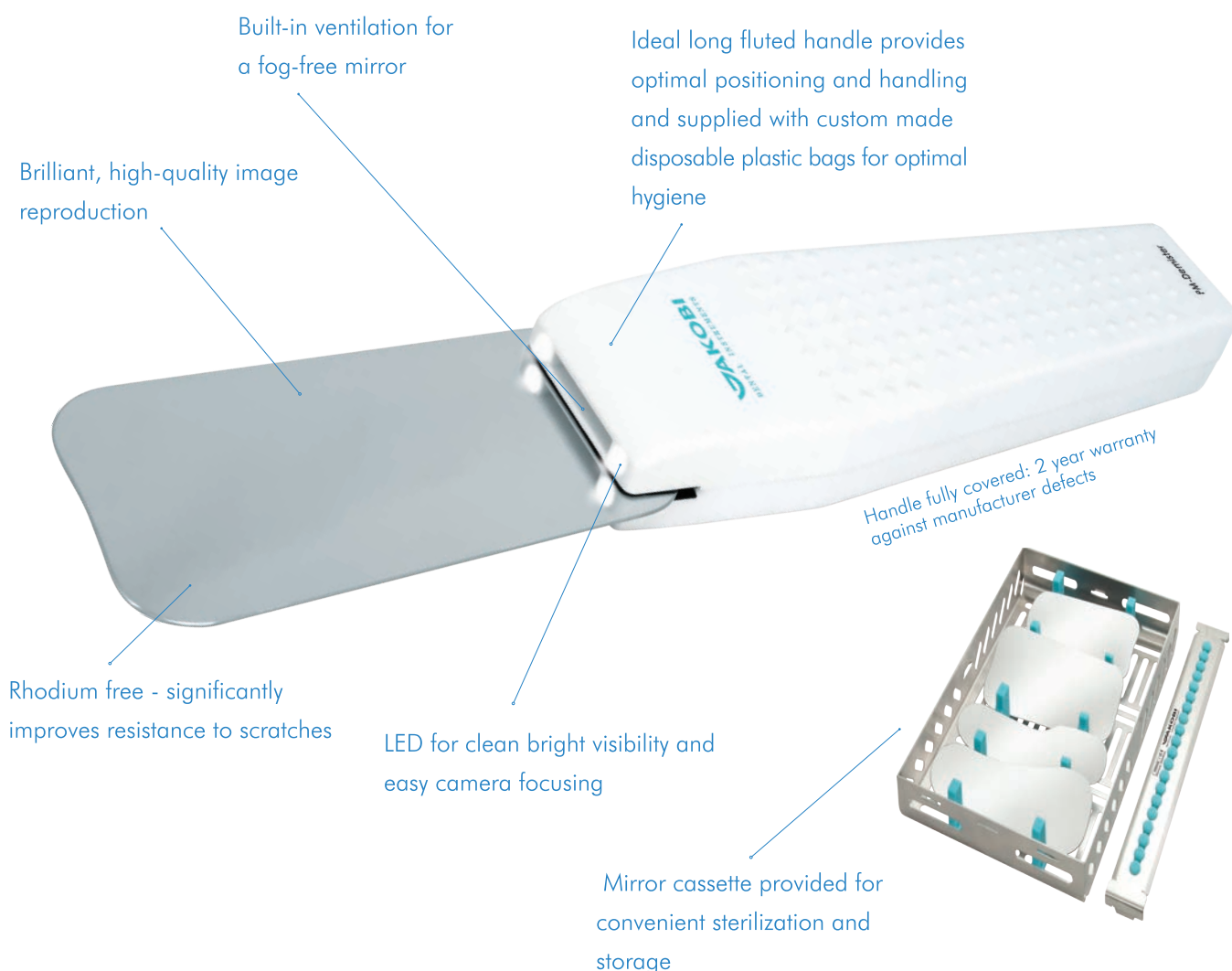
All FLEX DEVELOPER™ individual parts can be ordered separately on request!

# TRUEOPTICS™ Mirror

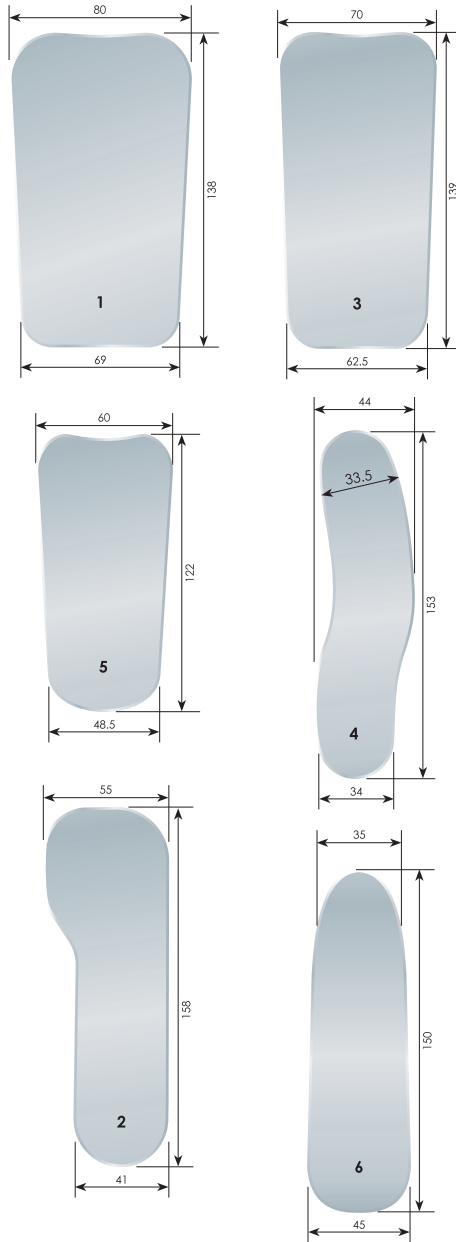


Fogged up mirrors make intraoral photography time consuming and frustrating. The TRUEOPTICS™ handle continuously blows a light steady flow of air across the mirror, eliminating the production of fog and the built in LED lights create fast, easy brilliant optics.

Picture quality is directly dependent on the quality of the dental mirror. To achieve high quality dental photos good enough for research, teaching, marketing or presentation of cases, the mirror should reflect with exceptional exposure optics.

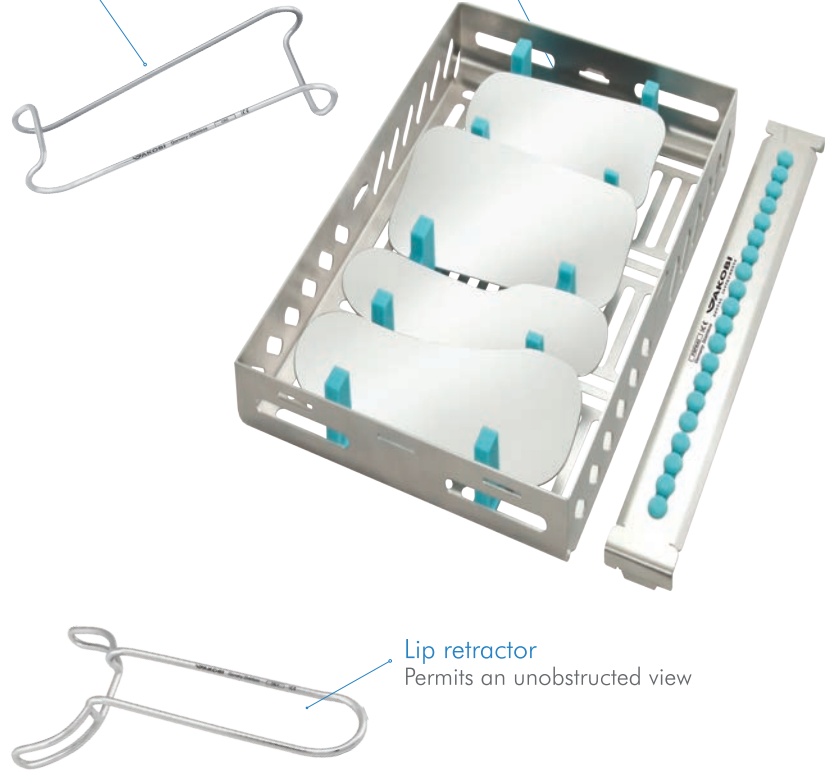






**Cheek retractor Columbia**  
Permits an unobstructed view

**Sterilization Cassette Tray**  
Holds up to 4 mirrors



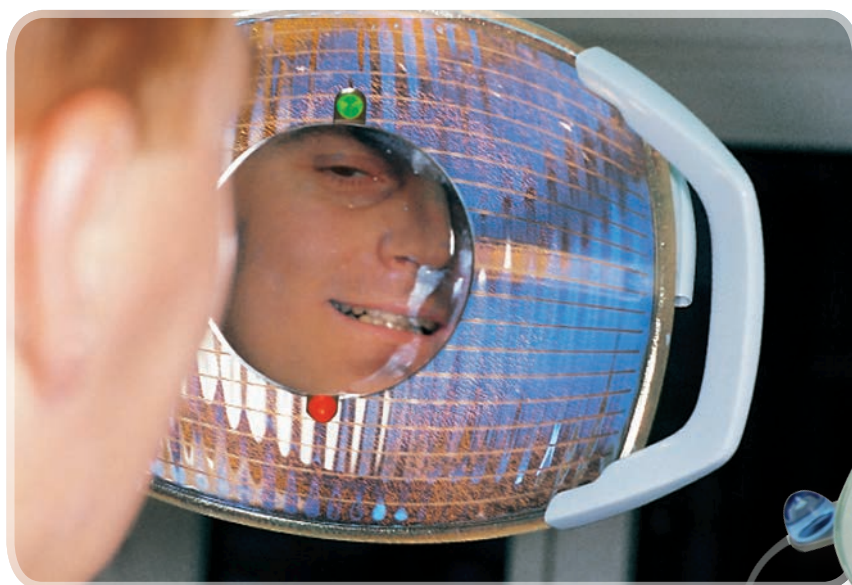
**Lip retractor**  
Permits an unobstructed view

Item #	Description
CRC	Cheek retractor Columbia CRC, ca. 135mm, distances 30mm & 42mm, stainless steel
CRLA	Lip retractor CRLA, ca. 160mm, for upper + lower jaws, stainless steel
FSFDM	PM-Demister: Mirror holder / main unit incl. Lithium battery, fast charger, 20 disposable protective covers
FSFDM01	Intraoral Photo Mirror 01, Occlusal, Front Surface, for adults, Material: stainless steel
FSFDM02	Intraoral Photo Mirror 02, lateral, Front Surface, for adults, Material: stainless steel
FSFDM03	Intraoral Photo Mirror 03, Occlusal, Front Surface, for adults, Material: stainless steel
FSFDM04	Intraoral Photo Mirror 04, lateral, Front Surface, for adults, Material: stainless steel
FSFDM05	Intraoral Photo Mirror 05, occlusal, Front Surface, for children, Material: stainless steel
FSFDM06	Intraoral Photo Mirror 06, lateral, Front Surface, universal, Material: stainless steel
FSFK43	Photo mirror tray FSFK43 for 4 mirrors, stainless steel, 290x187x35mm, incl. Silicon rails & clothing crossbar
FSFK02	Storage case for photo equipment (empty), 360x300x105mm, anodized aluminium, incl. customized foam parts, lockable
FSG2	Photo Mirror handle FSG 2, 155mm, anod. Aluminium, inclination angle 0-45° universal, for mirror gauge 1.5 - 3.0mm



# REFLEX COMMUNICATOR™

“Visible dangers frightens us less than the imaginary” William Shakespeare...



- Increase patient understanding
- Increase patient cooperation
- Decrease patient fear

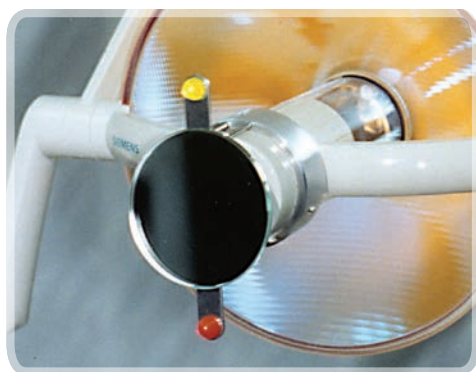


This proven simple solution to the age old problem of communicating effectively with patients.

The Reflex Communicator™ is an inconspicuous mirror attached securely to the operating light, allowing the patient to view his or her mouth directly, and observe what is happening. An excellent tool for easing fear and tension, and freeing the orthodontist to concentrate on intricate procedures.

The light and mirror are positioned onto the mouth and encourages patients to stay still as this is the only position to watch.

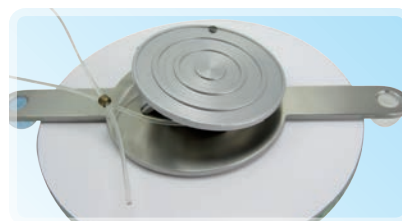
No necessity to reposition the lamp.



#### Ideal for:

The Reflex Communicator™ is a particularly useful accessory during intra-oral procedures involving orthodontics, oral hygiene instruction and also during consultation when description and advice is needed.

For those not interested in seeing what is happening in their mouth the orthodontist can easily deflect the mirror by simply pressing the colored buttons.



#### Reflex Communicator order info

Item	Article Description
RFLX	REFELEX Communicator, 90 mm
RFLX-7000	REFELEX Communicator, 70 mm
RFLX-90SIRO	REFELEX Communicator, 90 mm complete w/adaptor for Siroux-Lamp
RFLX-70SIRO	REFELEX Communicator, 70 mm complete with Adapter for Sirolux - lamp

The Reflex Communicator™ can be attached in the center of most lamps at the solid center.

