



**Easy does it – the new way of lying in bed**  
Völker MiS® Micro-Stimulation



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- [ 1 ] spring wing
- [ 2 ] support profile
- [ 3 ] suspension unit
- [ 4 ] frame

the spring elements on the one hand attaches the suspension units to the aluminium stringer, and on the other gently dampens spring deflection when carrying heavy loads.

The single fixings of the support profiles in the suspension units is a further great advantage over the double spring arches found in wooden slatted frames. As these are fitted with dual spring strips they do not allow the same degree of individual torsioning in the support locations as do the single strips.

In summary, it can be said that the combination of three spring systems achieves a dynamically progressive spring deflection curve. That means that – in comparison with slatted frames – there is no sudden sinkage with the rapid reaching of the end of the curve, but a gently dampened sinkage due to the serial arrangement of the spring system: wing – support profile – suspension unit. This gives rise to excellent body adaptation and support, which cannot be achieved with traditional slatted frames.

→ In addition to the standard version, mattress-frames are available with aluminium profiles also elastically located in the suspension units.



## As you make your bed, so must you lie on it.

Care-receivers and immobile elderly and extremely elderly people have a very special problem, and it is one that also becomes a problem for carers whenever it occurs: decubitus.

In co-operation with Thomashilfen and the Institute for Innovation in Health Care and Related Research (IGAP), Völker has developed an effective anti-decubitus positioning system specially tailored to Völker nursing and clinic beds: MiS® Micro-Stimulation-System.

The Völker MiS® Micro-Stimulation-System can maintain and enhance patients' autonomous mobility by means of specific somatic and vestibular stimulation. This ensures natural blood-circulation in the bodily tissue that hinders the development of bed sores or creates the basic preconditions for healing them.

The Völker MiS® Micro-Stimulation-System transmits additional information to patients on their bodily posture and tiny movements then stimulate autonomous reactive movement.

In the case of those suffering from chronic pain, the gentle, minimal movements contribute to pain alleviation. Hence the Völker Microstimulation System meets the triple requirement for patient mobilisation, enhanced sensory perception and pain alleviation that is only inadequately fulfilled by many other systems.

Find out how the Völker MiS® Micro-Stimulation-System works on the following page – and about what it can do for your carers and against your costs.

→ *With the SGB XI, the MDK ('Health Insurers' Medical Service') was charged with carrying out quality inspections on behalf of care insurers' regional associations. One of the most important questions in the inspection planned in 2000 for the year 2003: Does the care concept and documentation give evidence of a professional decubitus prophylaxis and therapy? ALTENPFLEGE (CARE OF THE ELDERLY) MAGAZINE, March 2003*

## Bedded on wings: Völker MiS® Micro-Stimulation-System.

### The problem.

The latest figures say that up to 30 percent of residents in homes for the elderly suffer from a form of decubitus. According to current research carried out by the Institute for Innovation in Health Care and Related Research (IGAP), up to 70 percent of those at risk do not have the benefit of the necessary ant-decubitus mattresses or systems. These patients' condition actually deteriorates because they continue to occupy 'normal' beds. Even the 40% of patients already suffering from decubitus do not have the benefit of an appropriate positioning system. The reason usually given is high investment costs.

IGAP research has not only exposed major deficits in the care of decubitus patients, but also in the use of available systems. Today it is clearly no longer sufficient to concentrate simply on pressure reduction. While this is still a precondition for regeneration, other aspects of the problem deserve no less attention. Many therapies at present in use do not adequately meet the requirement for mobility, enhanced sensory perception and pain alleviation.

### How can mobility be stimulated, pain alleviated and mental awareness improved?

A concept of basal stimulation introduced into care procedures some years ago can provide some answers to these questions. The aim of basal stimulation is the stimulation of patients' perceptive and communicative faculties as well as their mobility. Basal stimulation transmits bodily and environmental impulses. Applied to decubitus prophylaxis and therapy, the stimulation of mobility is the most important feature of basal stimulation. Its basic assumption is that movement can only take place when the patient has perceived sensory impressions in advance. In other words, a person only moves when stimulated to do so. Stimulative impulses are processed by the central nervous system and transformed into movement.

### Movement or mobility has numerous positive effects on both physical and mental well-being.

In relation to decubitus, physical activity constantly shifts the pressure acting on threatened parts of the body, or those already affected by the condition. By this means, the microcirculation of tissue is maintained, pressure points on the skin avoided and the structure of the capillary vessels left unharmed. The maintenance of the physiological supply of blood to the skin hinders the occurrence of bed sores, or stimulates healing.

### These basic elements of basal stimulation, ie the promotion of perception and mobility, were applied to the development of an innovative anti-decubitus system.

In co-operation with Thomashilfen and the Institute for Innovation in Health Care and Related Research (IGAP), Völker has developed an effective anti-decubitus positioning system specially tailored to Völker nursing and clinic beds: the Völker MiS® Micro-Stimulation-System. This is a patent-protected system of basal springs whose various components maintain and enhance patients' autonomous mobility by means of specific somatic and vestibular stimulation. This ensures natural blood-circulation in the bodily tissue that hinders the development of bed sores or creates the basic preconditions for healing them. To achieve this, the lying surface of Völker nursing beds is made up of numerous spring wings (design by Lattoflex) that have been further developed by Völker for use in institutional care.

The high number of moving points ensures a pleasant and comfortable sensation when lying down. The spring wings are made of polyoximethylene (POM), a recyclable plastic with high elasticity and shape-retention. Due to their characteristic torsional mobility combined with individual elasticity, they are capable of exceptional adaptability

independently of body shape or the position and posture of the resident.

Their absolutely individual and responsive action is greatly superior to that of conventional continuous moulded slatts.

The spring wings are removable and freely adjustable on the second component

of the Völker MiS® System, the elastic support profiles manufactured

from glass-fibre reinforced plastic by

means of a special process known as 'pulltrusion'.

In comparison with conventional slatted bases using a similar spring principle made of wood, for example, significantly improved torsional performance is achieved by the glass-fibre reinforced plastic support profiles used here with their cross-sectional elliptical form combined with springs (see below).



*The individual wing elements are individually positionable on the support profiles. For cleaning purposes, the wing elements are easily removable and the support profiles simple to take out of the suspension units.*

Both the material and the design principle ensure extreme stability and flexional strength. Excellent carrying capacity harnessed to exceptional adaptability and support are achieved by means of optimal geometrics and a skilfully balanced combination of materials.

The suspension units, the third component of the MiS® System, are mounted on elastic spring elements on both sides of the mattress-frame. These suspension units connect the spring arch with the aluminium external stringer of the frame.

The design of the suspension units as well as the flexibility of their material in combination with the support profile give rise to excellent torsional characteristics. In addition, the TPE module located inside