Invacare has a complete line of easy to understand and user-friendly Invacare® Solace® and microAIR® therapeutic support surfaces. The innovative designs help in the prevention and treatment of pressure ulcers.

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Pressure Ulcers: Understanding what they are and how to prevent them

Joining the Effort in Pressure Ulcer Prevention

There is a national focus on pressure ulcer prevention. In fact, the goal of the Institute for Healthcare Improvement was to reduce incidence by December 2008 and focus on “getting to zero.”

The Healthy People Initiative 2010 set forth two goals: increase the quality and years of healthy life and eliminate health disparities. In support of these goals, one specific objective is to cut the incidence of pressure ulcers in nursing home residents 50% by 2010.

The statistics are worth noting: There are 1.8 million new pressure ulcer cases each year, with 70% of those occurring in persons age 70 or older at an overall treatment cost of $1.3 billion. 24% of skilled nursing residents develop pressure ulcers at some time. That number increases to 60% in individuals with hip fractures.

The focus on more effective prevention and quicker healing is driven, and even mandated, by many government and medical associations.

But age, obesity, diabetes and other illnesses can all lead to pressure ulcers…and Americans are increasing in age, weight and diabetes occurrences. The goal of pressure ulcer reduction sounds like an impossible feat.

Six key interventions aimed at reducing pressure ulcer incidence are:

1. Assess pressure ulcer risk upon admission for all patients in all care environments: acute care, long term care and home care
2. Reassess risk daily through skin inspection
3. Manage moisture by keeping the patient dry
4. Optimize nutrition
5. Minimize pressure through use of pressure-relieving surfaces
6. Turn every 2 hours

Invacare has joined the effort with a full range of comfort solutions designed to prevent and remediate pressure ulcers.

The microAIR and Solace innovative technology solutions offer the patient increased relief and comfort while providing the caregiver a product that is easy to setup, use and maintain.

It’s what you’d expect from the leading manufacturer of medical equipment in the world — Invacare.

This information is not medical advice. Each individual should always consult with his/her physician.
Understanding Pressure Ulcers

What are pressure ulcers?
Pressure ulcers, sometimes called bed sores or decubitus (lying in bed) ulcers, are typically located in the areas where the body has less protective covering on weight bearing points. Those areas are typically heels, elbows, shoulders and the sacral regions in the supine, semi-recumbent and seated positions. Ankles, knees, hips and ears are additional areas of concern in the lateral position. (See Fig. A) When blood pressure inside the dermis is blocked or above 32mm/Hg, capillaries begin to close. (See Fig. B on page 5)

Without the nutrients in the blood and the removal of waste products, the area begins to break down. The first sign is redness and warmth to the touch. In severe stages, extensive tissue destruction can lead to tissue necrosis (death), and damage to supporting muscle and bone.

Who is at risk for a pressure ulcer?
A person who sits or lies in one position for an extended period of time might be at risk for pressure sores. Patients are more likely to get pressure sores if they are paralyzed, use a wheelchair or spend most of their time in bed.

How is patient risk assessed?
Patient risk is assessed on a number of factors standardized in assessments such as the Norton or Braden scales. It is recommended that patients be assessed as soon as possible upon entering into care.

This information is not medical advice. Each individual should always consult with his/her physician to determine proper product selection.

What are the risk factors?
1. Patient is immobile or inactive
   The lack of movement results in loss of blood flow to the skin.

2. Body size and shape
   Very thin or very obese patients are at a higher risk. Very thin people lack cushioning between the skin and bony prominences such as heels and elbows. Overweight patients have fewer blood vessels to the skin and require body movement to get the blood flow to the susceptible areas.

3. Skin condition and hygiene regimens
   Thinning skin, which naturally occurs with age, as well as with the use of some medications, may make the patient more susceptible.

4. Nutrition
   A balanced diet and proper calorie consumption are important in maintaining skin thickness and elasticity.

5. Incontinence and infection
   Urine and fecal matter or increases in body temperature and subsequent perspiration can cause maceration (the skin to soften). The skin is therefore more susceptible to tearing.

6. Circulation
   Edema or swelling due to poor blood circulation makes the susceptible areas less resistant to pressure.
Pre Stage I
Suspected Deep Tissue Injury
– Localized area of discolored (purple or maroon) intact skin or blood-filled blister due to damage of underlying soft tissue from pressure and/or shear. The tissue may be painful, firm, mushy, warmer or cooler compared to adjacent tissue.

Stage
Non-blanchable erythema of intact skin. (Skin that does not turn white when depressed).

Stage
Partial thickness skin loss involving epidermis, dermis or both.

Stage
Full thickness skin loss involving damage or necrosis of subcutaneous tissue that may extend down to, but not through, underlying fascia.

Stage
Full thickness skin loss with extensive destruction, tissue necrosis or damage to muscle, bone or supporting structures.

Unstageable
Full thickness tissue loss in which the base of the ulcer is covered by slough (yellow, tan, grey, green or brown) and/or eschar (tan, brown or black) in the wound bed.

How do pressure ulcers form?
Any individual or combination of the above factors, combined with environmental skin factors below, can result in a pressure ulcer. If the outer layer of skin (epidermis) is rubbed away, the more vulnerable dermis layer is exposed to bacteria and infection.

1. Pressure
When the capillary blood pressure is cut off from the skin by pressure on the area for an extended time.

2. Moisture
Over-hydrated (macerated) skin is at higher risk of tearing or breaking down from moving or friction.

3. Shear
Capillaries stretch and tear, reducing the blood flow when the skin remains stationary against the bed linens as the skeletal structure moves with the surface.

4. Friction
When the skin is pulled across a coarse surface and the outer protective layer (epidermis) is rubbed away.

What are support surfaces?
Support surfaces are the special mattresses, mattress overlays, seat cushions and specialty beds that support a patient’s body in bed or in a chair. Specifically, these support surfaces are used to reduce or relieve pressure that the weight of the body, and especially the bones, exert on the skin as it presses against the surface of a bed or seat of a chair. By relieving or reducing this pressure, existing pressure ulcers can heal and the chance that new pressure ulcers will develop can be reduced.

Types
- Nonpowered surfaces that include air, foam, gel mattresses and overlays
- Powered and nonpowered surfaces that include dynamic air overlays, low-air-loss systems, alternating pressure systems and lateral rotation systems

Which support surface to choose?
Support surfaces may be static (non-powered, reactive) or dynamic (movable, active surface). A static surface is recommended if a patient can assume varying positions without bearing weight on a pressure ulcer, generally a Group I surface. Dynamic surfaces are required if the patient cannot change positions without bearing weight on the pressure ulcer or if the patient fully compresses the static support surface, generally a Group II surface. Choosing the correct surface depends on the requirements listed under the Medicare criteria. See page 24.
Group I: Invacare® Solace® Foam Mattresses, Gel Overlays and Alternating Pressure Pad Systems

Simple to use and easy to maintain, these products include an alternating pressure pad system, gel overlay and foam mattress replacements.
Invacare® Solace® Therapeutic Foam Mattresses

Solace mattresses are unique single, dual- and tri-layered foam formulations. They are designed to minimize the risk of pressure ulcers by distributing weight as uniformly as possible and allowing blood to flow through the capillaries in areas prone to lesion development.*

The Prevention, Therapy and Resolution mattress systems offer good, better and best solutions in static support surfaces. Within each category, the products also reflect increasing treatment efficacy.

The unique and patented designs combine comfort and technology for patient and caregiver confidence.

The mattresses are available in standard 80” lengths with the ability to special order 76” and 84” lengths, and raised side rail models. Also available are 42” and 48” bariatric sizes in the Prevention and Therapy Series.

* Many support surfaces have been shown to improve pressure ulcers, however there is no compelling evidence that one performs better than all others in all circumstances. It is best to consider the therapeutic benefits of the products when determining which to use.
**Invacare® Solace® Prevention Series**
Cost effective, single and dual-layer design lowers interface pressure for the low-medium risk patient.

**Invacare® Solace® Prevention 0080 Mattress**
*Model no. SPS0080*
The Solace SPS0080 mattress is an economical foam mattress which features a single layer of foam specially fabricated to provide three zones of pressure reduction. It is designed to reduce patient interface pressure across the surface.

**Invacare® Solace® Prevention 1080 Mattress**
*Model no. SPS1080*
Zoned top layer relieves pressure in the important susceptible body zones. The convoluted “fortress” cut design offers more surface area for patient support and relief. Two layers of high quality foam include softer head and heel sections.

**SPS0080 Pressure Map: Female, 5’5”, 110 lbs.**

**SPS1080 Pressure Map: Female, 5’5”, 110 lbs.**
**Invacare® Solace® Prevention 2080 Mattress**

Model no. SPS2080

Added to the design are built-in side supports. The head and heel-soft sections add comfort and protection, while the side supports provide stability and durability. Also available in bariatric sizes; SPS2080B42, SPS2080B48 (400 lb. weight capacity on bariatric models).

**Invacare® Solace® Prevention 3080 Mattress**

Model no. SPS3080

The soft heel section is upgraded to visco-elastic foam to cradle the sensitive area. This product provides comfort and support with built-in side supports and dual layer “fortress” cut foam.
Invacare® Solace® Therapy Series
Multiple layered mattresses to provide pressure relief and comfort for medium to high risk patients.

Invacare® Solace® Therapy 1080 Mattress
Model no. STS1080
Precision three-layered mattress of die-cut foams provides pressure relief around bones, increases air flow to reduce surrounding temperature and provides uniform weight distribution for increased patient comfort. Included in the STS1080 mattress are side supports to provide stability and durability.

Invacare® Solace® Therapy 2080 Mattress
Model no. STS2080
Added to the design is a visco heel section to add comfort and protection. Also available in bariatric sizes; STS2080B42, STS2080B48 (650 lb. weight capacity on bariatric models).

Invacare® Solace® Therapy 3080 Mattress
Model no. STS3080
Building more into the therapy mattress is a specially designed visco-elastic foam top to cradle the entire body in foam. This series provides comfort and support and includes the side supports and three layers of “fortress” cut style foam.
**Invacare® Solace® Resolution Series**

The Resolution series is the best Invacare® foam mattress solution for high risk patients and for pressure redistribution.

**Invacare® Solace® Resolution 1080 Mattress**

**Model no. SRS1080**

Our most advanced foam mattress is designed for those patients who require the highest degree of pressure relief. The dual layer design incorporates two different types of foam to provide not only a therapeutic pressure-relieving surface but also one that is supportive and comfortable using high-density foam. In addition, the mattress has a heel slope to alleviate pressure along with built-in side supports. The convoluted fortress cut design offers more surface area for patient support and relief.
Invacare® Mattress Overlays

Invacare® Gel Overlay Mattress

Model no. IVCGFM02

Standard gel overlays often suffer from the same problem – gel migration, the process of squeezing the gel out from under pressure points thereby reducing the effectiveness of the overlay. Invacare’s gel overlay addresses this concern through a specific set of features.

Features

• Specially designed bladders run across the surface and minimize the migration of the gel
• Each cell works independently to provide support and minimize pressure points
• Flame Retardancy: (Meets flamability standards 16CFR1633, 16CFR1632)
• Optimal prevention/treatment of pressure sores
• One piece construction requires no assembly
• Elastic corner straps secure overlay to mattress
• Encased in a highly resilient foam base
• Gel is nontoxic
• Cover is constructed from a 70 denier nylon top, vinyl bottom which is fluid resistant and vapor permeable

Invacare® CareGuard™ Alternating Pressure Pad System

Model no. CG9701

Invacare CareGuard Alternating Pressure Pad (APP) system has mattress flaps to secure the product. The advanced technology pump inflates and deflates the air cells for patient relief. Variable pressure settings provide patient comfort.
Group II:
Invacare® microAir® Therapeutic Support Mattress Replacement Systems

Advanced series of powered mattress replacement systems and an alternating pressure overlay. Includes innovative features to give the ultimate pressure relief. Three modes of action include alternating pressure, low air loss and lateral rotation.
**The Invacare® microAIR® Difference: Security in Design**

Patient Safety and Caregiver Confidence

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**Constant Pressure Monitoring**

The touch pad allows you to set the appropriate pressure using patient weight. Once set, the computer technology inside monitors the pressure. Solenoid valves open and close to regulate the air inside the mattress and maintain the pressure at or below 32mm/Hg to avoid capillary occlusion. On compressor models (MA50, MA51, MA55, MA60, MA65, and MA90Z), the compressor will turn off while in maintenance mode for a quieter, energy saving environment.

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**On Demand Low Air Loss**

microAIR compressor models (MA55, MA65, MA90Z) all include the on-demand low air loss feature. When activated at the push of the button, air is sent inside the mattress to keep the mattress environment cooler for the patient, as well as help with moisture management. When not in use, the compressor will go into quiet energy saving mode for an improved sleep environment.

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**Ease of Set Up and Connection***

Unroll the mattress and hook the power unit to the end of the bed. Snap the mattress hose onto the plugged-in power unit and the mattress is ready to inflate.

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*Always read the product owner’s manual before use.
Wireless Auto Fowler

microAIR models MA60, MA65, MA80, MA85, MA90Z, MA95Z include this feature. A transmitter in the head section of the bed sends a signal to the power unit when that section is raised to add 25% more air into the center section of the bed, preventing the patient from bottoming out. A caregiver no longer needs to push the fowler button and the patient can raise the bed without calling for assistance.

Ease of Transport

Removal of the mattress is simplified by rolling it up beginning at the head section and putting the power unit inside the mattress for protection. Once rolled, attached over-the-shoulder carrying handles allow for easy transport.

Power Outage Safety

In the event of a power outage, compressor models (MA50, MA51, MA55, MA60, MA65 and MA90Z) remain inflated as long as the mattress air hose remains connected to the compressor. Once the power is returned, the memory inside the power unit returns to the programmed settings. Blower models (MA80, MA85 and MA95Z) also return to the pre-power outage settings once the power returns. The safety mat inside the mattress prevents the patient from bottoming out. Lateral rotation must be reprogrammed in MA90Z and MA95Z as a safety precaution.

Additional Safety Features

All microAIR therapeutic support systems include additional safety features: 2” safety foam mat (except the MA50 alternating pressure mattress overlay), low pressure and power outage audio and visual alarms and a lock out button to avoid accidental adjustments. microAIR therapeutic support systems are compliant with federal fire regulation 16CFR1632 and 16CFR1633 standards by including a sewn in fire sock on each model.

Whenever bed rails are used as part of any hospital or home care bed system, the potential for bed rail entrapment exists. To reduce this risk, a patient must always be assessed regarding their risk of entrapment before any product is used. Routine patient monitoring is also required once a product is in use. To learn more about the risk of bed rail entrapment please visit the US FDA’s website at http://www.fda.gov and search for "Bed Rail Entrapment."
**Invacare® microAir® Alternating Pressure Therapeutic Support Mattress Replacement System**

Model nos. MA50, MA51 and MA55

**Invacare® microAir® MA50 Alternating Pressure Overlay**

Model no. MA50

The microAir MA50 overlay is a full-featured alternating pressure overlay powered by a 10 LPM compressor with four alternating pressure cycles of 5, 10, 15 and 20 minutes.

**Invacare® microAir® MA51 Alternating Pressure Therapeutic Support Mattresses System and 10 LPM Compressor**

Model no. MA51

The Invacare MA51 is an alternating pressure mattress replacement which reduces interface pressure to aid in the prevention and treatment of Stage I to IV pressure ulcers.

**Invacare® microAir® MA55 Alternating Pressure with On-Demand Low Air Loss and 10 LPM Compressor**

Model no. MA55

In addition to all the features of the MA51 alternating pressure mattress, the MA55 model improves air circulation and cools the body temperature with a unique system of air released into the mattress.
Specifications for MA50, MA51 and MA55

Electrical Power: 90V, 60Hz, 1A

Dimensions:
- Mattress: MA50 - 6” x 36” x 80”, MA51 and MA55 - 8” x 36” x 80”
- Power Unit: 9.5” x 5” x 5”, 10 LPM
- Power Cord: 14 ft.

Weight Capacity: 350 lb.

Safety Code: 16 CFR 1632, 16 CFR 1633 compliant

Materials:
- Mattress Cover: Dual-layer, quilted, anti-microbial, fluid-proof, vapor permeable cover. Bottom cover is 1000 denier nylon
- Air cells: 70 denier urethane coated nylon

Limited Warranty:
- Mattress: 1 year
- Power Unit: 2 years

Features: microAIR MA50/MA51/MA55 Cover
- Dual quilted cover guards against friction and shear
- Fluid resistant
- Vapor permeable
- Anti-microbial

Features: microAIR MA50/MA51/MA55 Control Unit
- 10 LPM compressor continually monitors the air pressure in the mattress to maintain the appropriate pressure (generally below 32 mm/Hg)
- Solenoid valve system opens and closes to maintain air pressure in case of a power outage or to release air to maintain the appropriate surface pressure for the patient
- Four alternating pressure cycle times available at 5, 10, 15, 20 minutes to eliminate the pressure against the ulcer and to promote circulation to the entire body
- Up and down arrows with LED display allow adjustment for patient comfort and pressure relief
- Choice of alternating pressure or static therapy
- Max inflate
- Lock out button
- Visible and audible power warning signal
- Manual Fowler
- Energy saving compressor turns off when not needed during pressure maintenance periods
- Ninety degree, quick hose connector simplifies set up
- Lightweight and easy to use power unit with holder easily attaches to bed ends
- No air filter to clean
- 2 year warranty

Features: microAIR MA51/MA55 Mattress
- 8” mattress
- 2” foam added as safety measure
- Quick connect air cells make for easy replacement if needed
- CPR release built into mattress
- Attached carrying straps for easy transportation
- Buckle straps to secure mattress to bed deck
- 1 year warranty
Invacare® microAIR® Alternating Pressure Therapeutic Support Mattress Replacement System

Model nos. MA60 and MA65

Invacare® microAIR® MA60 Alternating Pressure Mattress Replacement System and 50 LPM Compressor

Model no. MA60

The Invacare microAIR 60 mattress is an alternating pressure mattress that reduces interface pressure to aid in the prevention and the treatment of Stage I to Stage IV pressure ulcers. This state-of-the-art 50 LPM compressor inflates the mattress within 5-10 minutes and provides faster, more efficient and complete therapy cycles.

Features: microAIR MA60/MA65 Mattress
- Deep 10” mattress
- 2” foam as added safety measure
- Quick connect air cells make for easy replacement if needed
- Built in carrying straps
- Buckle straps to secure mattress to bed deck
- CPR release built into mattress
- 1 year warranty

Features: microAIR MA60/MA65 Cover
- Dual quilted cover guards against friction and shear
- Fluid resistant
- Vapor permeable
- Anti-microbial

Features: microAIR MA60/MA65 Control Unit
- 50 LPM compressor continually monitors the air pressure in the mattress to maintain the appropriate pressure at or below 32 mm/Hg
- Alternating pressure button with 4 therapy cycles to eliminate the pressure against the ulcer and to promote blood circulation to the entire body
- Up and down arrows with LED/display allow adjustment for patient comfort and pressure relief
- Efficient real time monitoring for correct pressure relief
- Wireless automatic fowler adds 25% more air to prevent bottoming out when bed is articulated
- Energy saving compressor turns “off” when not needed during pressure maintenance periods
- Efficient solenoid air valves open and close as required to maintain proper interface pressures
- Power outage recovery - air will remain in mattress to prevent bottoming out
- Lock out button
- Digital display
- Max inflate
- Visible and audible power warning signal
- Lightweight and easy to use with holder for bed ends
- 2 year warranty
Invacare® microAIR® MA65 Alternating Pressure with On-Demand Low Air Loss and 50 LPM Compressor

Model no. MA65

In addition to all the features of the MA60 alternating pressure mattress, the MA65 model improves air circulation and cools the body temperature with a unique system of air released into the mattress.

Specifications

Electrical Power: 90V, 60Hz, 1A

Dimensions:

- **Mattress:** 10” x 36” x 80” Standard, 10” x 42” x 80” Bariatric 42”, 10” x 48” x 80” Bariatric 48”, 12” x 42” x 80” Raised Side Rail
- **Power Unit:** 15” x 16” x 11”, 50 LPM
- **Power Cord:** 14 ft.

Weight Capacity: 350 lb. – 1,000 lb.


Materials:

- **Mattress Cover:** Dual-layer, quilted, anti-microbial, fluid-proof, vapor permeable cover. Bottom cover is 1000 denier nylon
- **Air cells:** 70 denier urethane coated nylon

Limited Warranty:

- **Mattress:** 1 year
- **Power Unit:** 2 years

MA65 Pressure Map: Female, 5’5”, 110 lbs.
**Invacare® microAir® True Low Air Loss Therapeutic Support Mattress Replacement**

Model nos. MA80 and MA85

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**Invacare® microAir® MA80 True Low Air Loss Mattress Replacement System and 1275 LPM Blower**

**Model no. MA80**

The Invacare MA80 mattress model is a true low air loss mattress that helps manage skin moisture to avoid maceration and maintain a dryer environment for pressure ulcer healing in the treatment of Stage I to Stage IV pressure ulcers. The mattress and blower system automatically maintains five different pressure zones for softer head and heel sections and firmer torso pressure interfaces. Pulse settings are available on the MA80 unit.

**Features: microAir MA80/MA85 Control Unit**

- Efficient real time monitoring for correct pressure relief
- Up and down arrows with LED display allow adjustment for patient comfort and pressure relief
- Digital display of pressure setting
- Max inflate
- Lock out button
- Wireless auto fowler automatically adds 25% more air to prevent bottoming out when bed is articulated
- Static setting button
- Settings retained during a power outage and will resume once power is resumed
- MA80 version – Pulse setting
- MA85 version – AP time button with alternating pressure cycle times available at 5, 10, 15, 20 minutes
- Lightweight power unit attaches easily to bed ends
- 2 year warranty

**Features: microAir MA80/MA85 Mattress**

- Deep 10" mattress
- 2" safety foam as added safety measure
- Quick connect air cells make for easy replacement if needed
- Built in carrying straps
- Buckle straps to secure mattress to bed deck
- CPR release built into mattress
- Ninety degree, magnetic hose connector simplifies set up (on MA85)
- 1 year warranty

**Features: microAir MA80/MA85 Cover**

- Unique dual quilted cover guards against friction and shear
- Fluid resistant
- Vapor permeable
- Anti-microbial

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MA85 Pressure Map: Female, 5'5", 110 lbs.
Invacare® microAIR® MA85 True Low Air Loss with Alternating Pressure and 1275 LPM Blower

Model no. MA85

Building on the true low air loss model benefits of improved air circulation, body temperature cooling and skin moisture management, the microAIR MA85 model increases the therapy with the addition of alternating pressure to reduce surface interface and offer pressure relief. Alternating pressure settings of 5, 10, 15, 20 minutes are available on the MA85 unit.

Specifications
Electrical Power: 90V, 60Hz, 1A
Dimensions:
- Mattress: 10” x 36” x 80” Standard, 10” x 42” x 80” Bariatric 42”, 10” x 48” x 80” Bariatric 48”, 12” x 42” x 80” Raised Side Rail
- Power Unit: 14.5” x 11” x 6”, 1275 LPM
- Power Cord: 14 ft.
Weight Capacity: 350 lb. – 1,000 lb.
Materials:
- MA80: Breathable 70 denier quilted nylon with 1000 denier nylon bottom
- MA85: Urethane four way stretch quilted top cover with 1000 denier nylon bottom
Air cells: 70 denier urethane coated nylon
Limited Warranty:
- Mattress: 1 year
- Power Unit: 2 years
Invacare® microAIR® Lateral Rotation Therapeutic Support Mattress Replacement Systems

Model nos. MA90Z and MA95Z

Invacare® microAIR® lateral rotation mattresses provide pressure relief and moisture maintenance for patients who need to be turned for pressure relief or other health indications. Inherent in the design of the patented z-cell design is alternating pressure as the mattress turns. As with the other microAIR mattresses, these therapeutic systems offer relief for pressure ulcers from stages I through IV.

Another protective measure of the MA90 Series for patient safety is that the mattress recenters the patient between rotations. Also, the lateral rotation mode will automatically be stopped when the bed is in the fowler or upright mode.

Invacare® microAIR® MA90Z Lateral Rotation with Alternating Pressure and On-Demand Low Air Loss with 50 LPM Compressor

Model no. MA90Z

The turn is offered to angles up to 30° for pulmonary therapy requirements with options for ¼, ½ and ¾ turns. Turn times available are 10, 20, 30 and 60 minutes with options to turn right or left only as well as both sides.

Invacare® microAIR® MA95Z Lateral Rotation with Alternating Pressure and True Low Air Loss with 1275 LPM Blower

Model no. MA95Z

This model allows for customization of patient therapy settings including up to 45° of turn, time and pressure. Alternating, static and pulse therapies are available in addition to the lateral rotation and continuous true low air loss relief.

Specifications

<table>
<thead>
<tr>
<th>Article</th>
<th>Value</th>
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<tr>
<td>Electrical Power</td>
<td>90V, 60Hz, 1A</td>
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<tr>
<td>Dimensions</td>
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<td>Mattress</td>
<td>12” x 36” x 80” Standard, 12” x 42” x 80” Bariatric 42”, 12” x 48” x 80” Bariatric 48”</td>
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<td>Power Unit</td>
<td>14.5” x 11” x 6”, 50 LPM (on MA90Z) or 1275 LPM (on MA95Z)</td>
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<td>Power Cord</td>
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<td>Weight Capacity</td>
<td>350 lb. – 1,000 lb.</td>
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<td>Materials</td>
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<tr>
<td>Mattress Cover</td>
<td>Urethane four way stretch quilted navy cover is antimicrobial, fluid-resistant, vapor permeable. Bottom cover is 1000 denier nylon</td>
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<tr>
<td>Air cells</td>
<td>70 denier urethane coated nylon</td>
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<tr>
<td>Limited Warranty</td>
<td>Mattress: 1 year, Power Unit: 2 years</td>
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</tbody>
</table>

MA95Z Pressure Map: Female, 5’5”, 110 lbs.
Features: MicroAIR MA90Z/MA95Z Control Unit

- MA90Z – Energy saving compressor turns off to maintain pressure setting
- MA90Z – Efficient solenoid air valves open and close to maintain proper interface pressure
- MA90Z – Power outage safety with mattress hose connected to the compressor
- MA95Z – Large LCD display with pulse, static, upright/fowler and allows for angle and pressure adjustment
- MA95Z – Ninety degree, magnetic hose connector simplifies set up and provides quick CPR deflate
- Efficient real time monitoring for correct pressure relief
- Wireless auto Fowler automatically adds 25% more air to prevent bottoming out when bed is articulated
- Settings retained during a power outage and will resume once power is returned
- Up and down arrows allow adjustment for patient comfort and pressure relief
- Max inflate with 30 minute safety feature
- Lock out button
- Static setting
- Visible and audible warning signal button
- Lightweight power unit attaches easily to bed ends
- 2 year warranty

Features: MicroAIR MA90Z/MA95Z Mattress

- Patented z-cell air cell design
- Constant air pressure side bolsters
- 2” safety foam added as safety measure
- Quick connect air cells
- CPR release
- Ninety degree magnetic connector simplifies set up (on MA95)
- Built-in carrying straps for easy transportation
- Buckle straps to secure mattress to bed deck
- Inflates quickly
- 1 year warranty

Features: MicroAIR MA90Z/MA95Z Cover

- Urethane four way stretch quilted navy cover
- Anti-microbial
- Fluid resistant
- Vapor permeable
**Therapeutic Support Surfaces**

**Group I and Group II Medicare Criteria**

**MEDICARE CRITERIA***
Support surfaces may be static (non-powered, reactive) or dynamic (moveable active surface). A static surface is recommended if a patient can assume varying positions without bearing weight on a pressure ulcer, generally a Group I surface. Dynamic surfaces are required if the patient cannot change positions without bearing weight on the pressure ulcer OR if the patient fully compresses the static support surface (usually Group II)**.

**GROUP I TREATMENT**
Group I surfaces may be covered if the patient meets the following criteria:

1. Completely immobile (patient cannot move around without assistance).

OR

2. Limited mobility (patient cannot make changes in body positions significant enough to alleviate pressure) PLUS one of Number 4-7.

OR

3. Any stage pressure ulcer on the trunk or pelvis PLUS one of Numbers 4-7.

AND

4. Impaired nutritional status.

5. Fecal or urinary incontinence.

6. Altered sensory perception.

7. Compromised circulatory status.

**GROUP II TREATMENT**
Group II surfaces may be covered if the patient meets the following criteria:

1. Multiple stage II pressure ulcers located on the trunk or pelvis.

AND

2. Patient has been on a comprehensive ulcer treatment program*** for at least the past month which has included the use of a Group I support surface, and ulcers have worsened or remained the same over the past month.

OR

3. Large or multiple stage III or IV pressure ulcer(s) on the trunk or pelvis.

OR

4. Recent myocutaneous flap or skin graft for a pressure ulcer on the trunk or pelvis (surgery within the past 60 days).

AND

5. The patient has been on a Group II or III support surface immediately prior to a recent discharge from a hospital or nursing facility (discharge within the past 30 days).

* Medicare Criteria: This information is not intended to be, nor should it be considered, billing or legal advice. Providers are responsible for determining the appropriate billing codes when submitting claims to the Medicare program, and should consult an attorney or other advisor to discuss specific situations in further detail.

** This information is not medical advice. Each individual should always consult with his/her physician to determine proper product selection.

*** Documented comprehensive care plan/treatment program should generally include: education for patient and caregiver on prevention/management of pressure ulcers; regular assessment by a licensed practitioner (weekly if stage 3 or 4, monthly if stage 1 or 2); turning and positioning schedule; appropriate wound care (stage 3 or 4); appropriate management of moisture/incontinence; nutritional assessment and intervention.
## Group I Therapeutic Support Surfaces

<table>
<thead>
<tr>
<th>Model Name</th>
<th>Gel Foam Mattress Overlay</th>
<th>Invacare® CareGuard™ Alternating Pressure Pad System</th>
<th>Invacare® Solace® Prevention Single Layer Foam Mattresses</th>
<th>Invacare® Solace® Prevention Dual- Layer Foam Mattresses</th>
<th>Invacare® Solace® Therapy Tri-Layer Foam Mattresses</th>
<th>Solace® Resolution Mattresses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model Number</td>
<td>IVCGFM02</td>
<td>CS9701</td>
<td>SPS0080</td>
<td>SPS0084</td>
<td>SPS1080</td>
<td>SPS2080</td>
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<td>HCPSC Code</td>
<td>EB185 (IN)</td>
<td>EB181 (CR)</td>
<td>ED184 (IN)</td>
<td>ED184 (IN)</td>
<td>ED184 (IN)</td>
<td>ED184 (IN)</td>
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<td>Patient Risk Level</td>
<td>Low</td>
<td>Low</td>
<td>Low - Medium</td>
<td>Low - Medium</td>
<td>Medium - High</td>
<td>Medium - High</td>
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<tr>
<td>Medicare Reimbursement Range</td>
<td>$285.47 - $335.85</td>
<td>$23.26 - $27.36</td>
<td>$173.77-$204.77</td>
<td>$173.77-$204.77</td>
<td>$173.77-$204.77</td>
<td>$173.77-$204.77</td>
</tr>
</tbody>
</table>

### Features

- **Built-in Side Supports**: ![Not Available](image)
- **Comfort Settings/Therapy Time Settings (min)**: Adjustable
- **Cover**: 70 Denier nylon top 9 oz. tri-laminate vinyl bottom fluid resistant, vapor permeable
- **Raised Side Rail Design Available**: ![Not Available](image)
- **Quick CPR Release**: ![Not Available](image)
- **Fortress Cut Convoluted Foam**: Gel
- **Mattress Construction**: Gel, Pads, Foam, Foam, Foam
- **Mattress Dimensions**: 34” x 78” x 3.5” 34” x 118” x 2.5” 36” x 80” x 6” 36” x 80” x 6” 36” x 80” x 6” 36” x 80” x 6”
- **Weight Capacity**: 275 lb. 250 lb. 350 lb. 350 lb. / 400 lb. 350 lb. / 650 lb. 350 lb.
- **CFR Fire Safety Testing**: 16 CFR 1632, 16 CFR 1633
- **Limited Warranty**: Mattress 6 months 30 days 2 years 5 years 5 years 5 years Power Unit 1 year Cover 6 months 1 year 1 year 1 year 1 year 1 year
## Group II Therapeutic Support Surfaces

<table>
<thead>
<tr>
<th>Model Name</th>
<th>Invacare® microAIR® MA50 - 5&quot; Overlay</th>
<th>Invacare® microAIR® MA51 Mattress</th>
<th>Invacare® microAIR® MA60 10&quot; AP Mattress</th>
<th>Invacare® microAIR® MA55 AP/LAL</th>
<th>Invacare® microAIR® MA65 AP/LAL</th>
<th>Invacare® microAIR® MA85 True Low Air Loss AP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model Number</td>
<td>MA50</td>
<td>MA51</td>
<td>MA60</td>
<td>MA55</td>
<td>MA65</td>
<td>MA65RSR</td>
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<tr>
<td>Patient Risk Level</td>
<td>Therapy</td>
<td>Therapy</td>
<td>Therapy</td>
<td>Therapy</td>
<td>Therapy</td>
<td>Therapy</td>
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<tr>
<td>Medicare Reimbursement Range</td>
<td>$414.89 - $488.10</td>
<td>$584.14 - $636.64</td>
<td>$584.14 - $636.64</td>
<td>$584.14 - $636.64</td>
<td>$584.14 - $636.64</td>
<td>$584.14 - $636.64</td>
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<tr>
<td>Type of Therapy</td>
<td>Alternating Pressure</td>
<td>Alternating Pressure</td>
<td>Alternating Pressure</td>
<td>Alternating Pressure</td>
<td>Alternating Pressure</td>
<td>True Low Air Loss AP</td>
</tr>
<tr>
<td>Compressor Features</td>
<td>State of the Art Compressor</td>
<td>10 LPM</td>
<td>10 LPM</td>
<td>50 LPM</td>
<td>10 LPM</td>
<td>50 LPM</td>
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<tr>
<td></td>
<td>Blower</td>
<td>1275 LPM</td>
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<td>Therapy Time Settings (min)</td>
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<td>5, 10, 15, 20</td>
<td>5, 10, 15, 20</td>
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<tr>
<td></td>
<td>Comfort Settings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fowler Indicator</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wireless Fowler</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Power Failure/Low Pressure Alarm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Alarm Silence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quick Connect Coupler</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Mattress Features</td>
<td>Mattress Dimensions</td>
<td>36” x 80” x 6”</td>
<td>36” x 80” x 6”</td>
<td>36” x 80” x 10”</td>
<td>36” x 80” x 8”</td>
<td>36” x 80” x 10”</td>
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<tr>
<td></td>
<td></td>
<td>36” x 80” x 12”</td>
<td>42” x 80” x 10”</td>
<td>48” x 80” x 10”</td>
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<td>Mattress Construction</td>
<td>16 - Bladders</td>
<td>16 - Bladders</td>
<td>20 - Bladders</td>
<td>16 - Bladders</td>
<td>20 - Bladders</td>
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<tr>
<td></td>
<td>Safety Mat 2” Foam</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Built-in Side Supports</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cover</td>
<td>70 Denier quilted nylon 600 Denier nylon bottom</td>
<td>70 Denier quilted nylon 600 Denier nylon bottom</td>
<td>Dual quilted slip layer cover 1000 Denier nylon bottom</td>
<td>70 Denier quilted nylon 1000 Denier nylon bottom</td>
<td>Dual quilted slip layer cover 1000 Denier nylon bottom</td>
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<td></td>
<td>Dual quilted slip layer cover 1000 Denier nylon bottom</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quick CPR Release</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Weight Capacity</td>
<td>350 lb.</td>
<td>350 lb.</td>
<td>350 lb.</td>
<td>350 lb.</td>
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<td></td>
<td>Bariatric Weight Capacity</td>
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<td>1,000 lb.</td>
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<tr>
<td></td>
<td>Z Cell</td>
<td></td>
<td></td>
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<tr>
<td>CFR Fire Safety Testing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>16 CFR 1632, 16 CFR 1633</td>
<td>Not required</td>
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<td>Limited Warranty</td>
<td>Mattress</td>
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<td>1 year</td>
<td>1 year</td>
<td>1 year</td>
<td>1 year</td>
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<tr>
<td></td>
<td>Power Unit</td>
<td>2 year</td>
<td>2 year</td>
<td>2 year</td>
<td>2 year</td>
<td>2 year</td>
</tr>
<tr>
<td></td>
<td>Cover</td>
<td>1 year</td>
<td>1 year</td>
<td>1 year</td>
<td>1 year</td>
<td>1 year</td>
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</table>
## Group II Therapeutic Support Surfaces

<table>
<thead>
<tr>
<th></th>
<th>True Low Air Loss</th>
<th>Lateral Rotation with Alternating Pressure and Low Air Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model Name</strong></td>
<td>microAIR® MA80</td>
<td>microAIR® MA90Z</td>
</tr>
<tr>
<td></td>
<td>True</td>
<td>Turn/LAL/AP</td>
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<tr>
<td><strong>Model Number</strong></td>
<td>MA80</td>
<td>MA90Z</td>
</tr>
<tr>
<td></td>
<td>MA80RSR</td>
<td>MA90ZB42</td>
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<td></td>
<td>MA80B42</td>
<td>MA90ZB48</td>
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<td>MA80B48</td>
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<tr>
<td><strong>HCPCS Code</strong></td>
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<td><strong>Patient Risk Level</strong></td>
<td>Therapy</td>
<td>Therapy</td>
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<tr>
<td><strong>Medicare Reimbursement Range</strong></td>
<td>$584.14 - $636.64</td>
<td>$584.14 - $636.64</td>
</tr>
</tbody>
</table>

### Type of Therapy
- Alternating Pressure:
- Low Air Loss: True
- Lateral Rotation: True

### Compressor Features
- **State of the Art Compressor**: 50 LPM
- **Blower**: 1275 LPM
- **Therapy Time Settings (min)**: N/A, 10, 20, 30, 60, Custom
- **Comfort Settings**:
  - Fowler Indicator: on-display, on-display
  - Wireless Fowler: on-display
- **Power Failure/Low Pressure Alarm**:
- **Alarm Silence**:
- **Quick Connect Coupler**: magnetic

### Mattress Features
- **Mattress Dimensions**:
  - 36" x 80" x 10"
  - 36" x 80" x 12"
  - 42" x 80" x 10"
  - 46" x 80" x 10"
  - 46" x 80" x 12"

- **Mattress Construction**:
  - 20 - Bladders
  - 24 - Bladders
  - 24 - Bladders

- **Safety Mat 2" Foam**:
- **Built-in Side Supports**:
  - 12" Side bolsters
  - 12" Side bolsters

- **Cover**:
  - Dual quilted slip layer cover
  - 1000 Denier nylon bottom
  - Urethane with honeycomb layer cover
  - 1000 Denier nylon bottom
  - Urethane 4-way stretch quilted top cover

- **Quick CPR Release**:
- **Weight Capacity**:
  - 350 lb.
  - 350 lb.
  - 350 lb.

- **Bariatric Weight Capacity**:
  - 1,000 lb.
  - 1,000 lb.
  - 1,000 lb.

- **Z Cell**:
- **CFR Fire Safety Testing**:
  - 16 CFR 1632, 16 CFR 1633, TB129

### Limited Warranty
- **Mattress**: 1 year
- **Power Unit**: 2 year
- **Cover**: 1 year
All references to HCPCS codes: Providers are responsible for determining the appropriate billing codes when submitting claims to the Medicare program and should consult an attorney or other advisor to discuss specific situations in further detail.

For more information, contact your Invacare Territory Business Manager at 1-800-333-6900 or visit our website at www.invacare.com

All references to HCPCS codes: Providers are responsible for determining the appropriate billing codes when submitting claims to the Medicare program and should consult an attorney or other advisor to!discuss specific situations in further detail.

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Form No. 08-047
Rev. 02/11
110223

The Marketing Toolbox
Direct Mail Post Cards

The Marketing Toolbox is located within Invacare Pro. The Marketing Toolbox contains many customizable templates to help grow your business. All you need to do is pay for the cost of printing and advertising with your choice of vendors.

Case Study

A study of Invacare® microAIR® modules in prevention, healing and palliative condition.

- Form number 09-019

Provider Presentation Folder

Kit contains Therapeutic Support Surfaces catalog, Medicare tri-fold, DVD and Case Study Brochure.

- Form number 08-069

Medicare Tri-fold

- Form number 06-081 (included in folder)

Product Information DVD

Invacare® microAIR® and Solace® Therapeutic Mattress product information DVD (included in folder)

- English version 08-055
- Spanish version 09-015

Marketing Brochure

Homecare Products catalog

- Form number 09-009

CEU Program

Contact your Territory Business Manager.

Direct Mail Post Cards

The Marketing Toolbox is located within Invacare Pro. The Marketing Toolbox contains many customizable templates to help grow your business. All you need to do is pay for the cost of printing and advertising with your choice of vendors.