

# THE FUTURE OF ERGONOMIC SAFETY

The Next Generation of Premium Full Body Harnesses

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Miller® H700  
Series

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Honeywell  
**MILLER**

# SAFETY BACKED BY SCIENCE

We've taken a deep dive into robust scientific research to elevate our H-Series fall protection harnesses. We've analyzed the medical science behind suspension trauma, as well as the science behind ergonomic design and novel materials. We've conducted tests to examine breathability and pressure distribution. And then, we added state-of-the-art innovation to shape the all-new Honeywell Miller H700 Premium Harness Series.

**The Honeywell Miller H700 full body harness helps ensure workers stay compliant, protected and productive when working at height thanks to scientifically-based technological advances that focus on comfort, safety and intuitiveness.**

## COMFORT

The Miller H700 harness features high-tech, multi-layered new-generation 3D movement-focused waist padding for prolonged work positioning, enhanced shock absorption, breathability and venting – helping to keep workers drier and cooler on the job. The webbing surface is water repellent and durable. Moreover, our new Pivot Strap Adjuster enables a variety of leg configurations for customizable comfort.

## SAFETY

Harnesses help keep workers at height safe, but spending long hours in a restrictive, non-ergonomic heavy harness can lead to muscular fatigue and may even cause serious medical problems. Plus, when a worker falls and is suspended, time is of the essence. With the Miller H700, what's usually a complicated four-step process in providing trauma relief is now one easy step with the One-Pull Trauma Relief Steps accessory, which provides a quick auto-release. Suspension trauma is largely alleviated, blood flow continues to circulate and the worker is safer until help arrives.

## INTUITIVENESS

Intuitive and easy-to-use adjustability options provide customizable comfort. The low-profile textile accessory interface straps enable workers to conveniently attach and move pouches around onto the Miller H700 harness. Tool tether anchor attachments and lanyard keepers are also positioned in several convenient locations and the integrated Personal Fall Limiter (PFL) connector enables the attachment of SRLs and carabiners. The dorsal wear protector accessory helps protect the dorsal webbing from damage.



# ERGONOMICS AS A SCIENCE

The Honeywell Miller H700 Premium Series full body harnesses aren't just comfortable, they're ergonomically designed for optimum protection.

A complete ergonomic assessment is typically based on a series of scientific data:

- Anthropometric data: height, weight, waist circumference
- Human anatomy, lumbar support, weight distribution, shoulder stabilization, musculoskeletal benchmarks
- Range of motion study: rotation, extension, lateral bending and flexion, movement-focused technology
- Heatmapping thermal comfort: body heat ventilation and evaporative cooling
- Pressure mapping: computerized clinical tool for assessing pressure distribution

## Evidence-Driven Safety Features

As a global leader in fall protection, our legacy informs our future. We've learned that heavy fall protection makes it difficult to get through the day. To address that distress, we developed the following innovations, utilizing scientific findings to improve safety and comfort.





# ENGINEERED WITH ADVANCED MATERIALS

## 1. USER-FRIENDLY LANYARD KEEPERS AND TOOL TETHER ANCHORS

These are all positioned in convenient locations.

## 2. ERGONOMICALLY-SUPERIOR CHEST DESIGN

The new construction helps to enhance freedom of upper-body movement.

## 3. HIGH-TECH 3D PADDING

New-generation 3D knitted movement-focused waist padding for prolonged work positioning at heights.

## 4. CONFIGURABLE LEG STRAP DESIGN

The Pivot Strap Adjusters allow for a variety of leg configurations for customizable comfort.



## 5. ONE-PULL TRAUMA RELIEF STEPS

These features provide a state-of-the-art solution for suspension trauma relief.

*\* This is an accessory sold separately*



# DESIGNED FOR ERGONOMIC SAFETY

## 6. PRACTICAL INTEGRATED SRL CONNECTOR

Conveniently-placed PFL integrated connector enables an easy attachment of personal single and/or twin SRLs and carabiners.

## 7. OPTIMIZED LABEL PROTECTION AND IDENTIFIABLE HARNESS SIZE

Each harness includes their own new protected name plate identification and QR code.

## 8. DORSAL WEAR PROTECTOR

This can be added to help protect the dorsal webbing from damage.

*\*This is an accessory sold separately*

## 9. MODULAR LIGHTWEIGHT ACCESSORY STRAPS

These components help to enhance harness adjustability and increase user convenience.

## MORE COMFORTABLE THAN EVER

The lightweight full-body harness offers less heft, more comfort and easier movability, reducing muscular fatigue, motion constraints and sweat.



# FOUR CORE MODELS WITH A NEW MODERN DESIGN

The modern ergonomic design provides higher visibility, smarter features and safer, more comfortable functionality. Select from four models, available in four sizes.



## CC7

- Next-generation 3D movement focused waist pad for prolonged work positioning at heights
- Highly breathable, lightweight, ergonomic shoulder/back padding
- Shoulder D-rings
- Belly D-ring
- Integrated SRL adaptor
- Pivot link leg strap adjuster



## CC5

- Next-generation 3D movement focused waist pad for prolonged work positioning at heights
- Highly breathable, lightweight, ergonomic shoulder/back padding
- Integrated SRL adaptor
- Pivot link leg strap adjuster



## CC3

- Next-generation 3D movement focused waist pad for prolonged work positioning at heights
- Highly breathable, lightweight, ergonomic shoulder/back padding
- Rotative belt

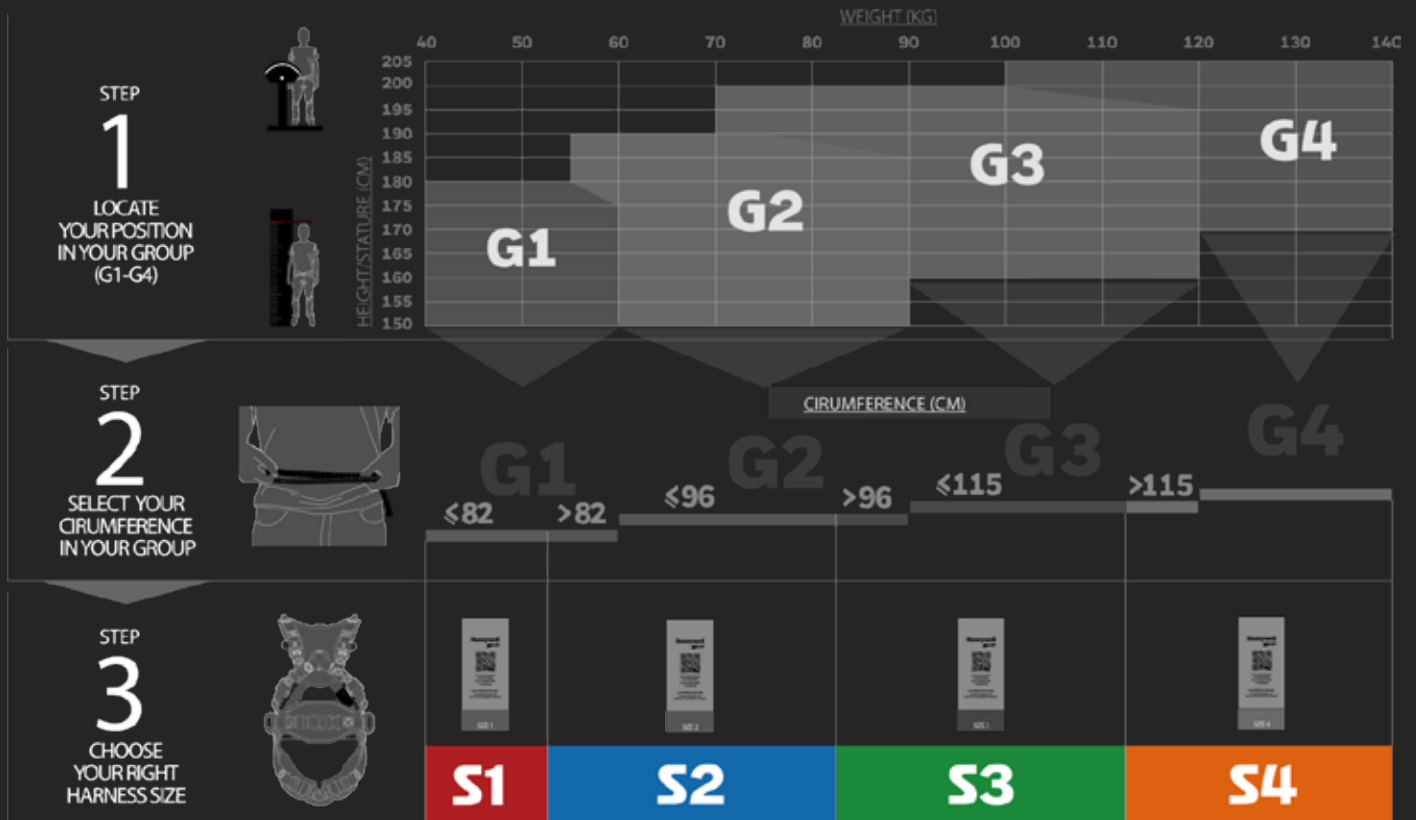
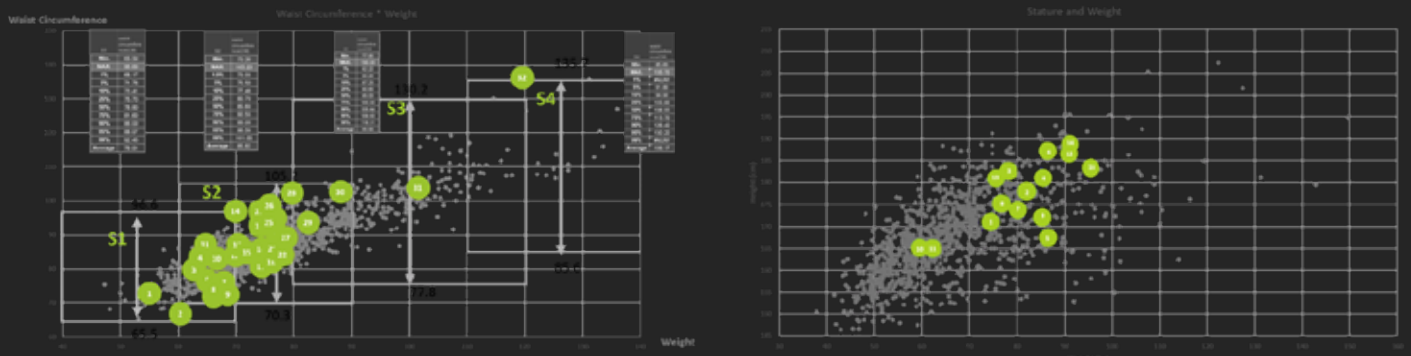


## IC2

- Highly breathable, lightweight, ergonomic shoulder/back padding
- Integrated SRL adaptor
- Pivot link leg strap adjuster

# REVOLUTIONARY SIZE CHART

Intuitive size selection. Redefined size chart for improved accuracy in harness size selection, beyond traditional height and weight.





# PRESSURE DISTRIBUTION

## PURPOSE OF THIS TEST

This internal test measures the pressure distribution around the waist padding of a worker wearing a harness at height positions. The more even the pressure distributes on the waist padding, the more comfortable it feels for the wearers.

## TEST RESULTS

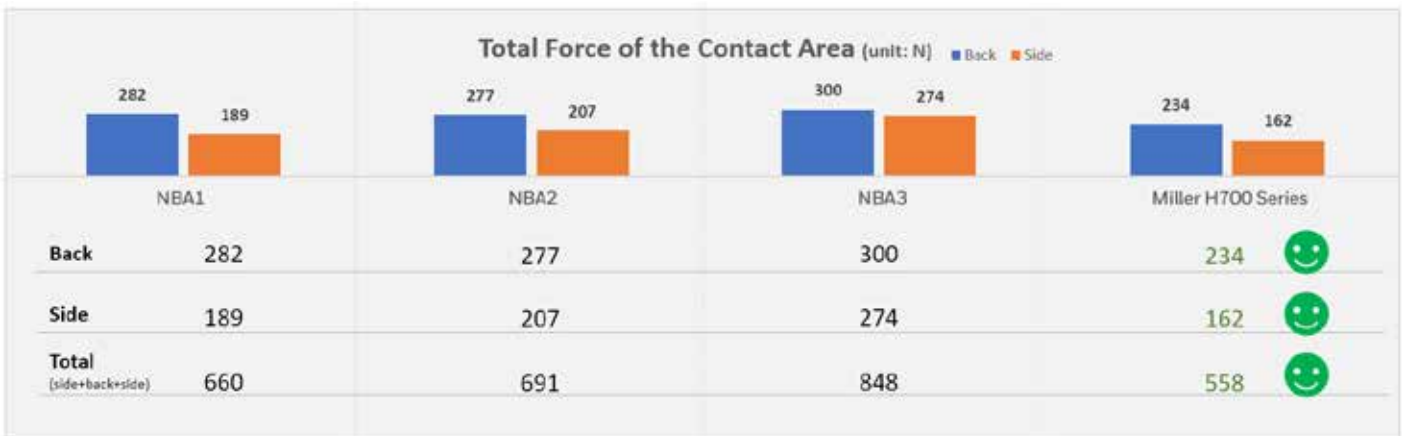
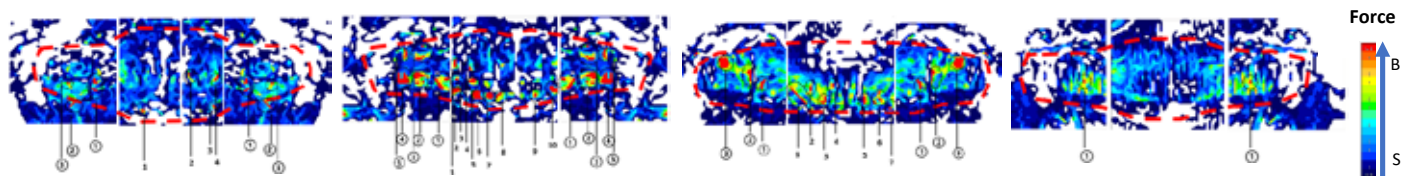
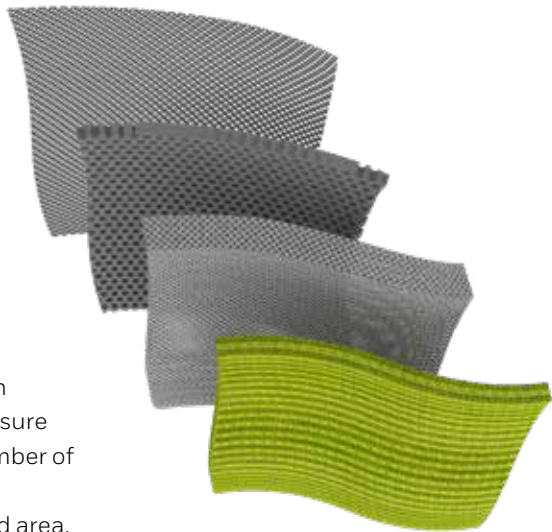
Among the four harnesses with waist padding, Miller H700 waist padding generates the most even pressure distribution and the lowest total force.

## CONCLUSION

Miller H700 waist padding multi-layers materials with gradient hardness can support the prolonged work time to offer excellent user experience. The pressure distribution map shows the Miller H700 harness performs with the least number of peak forces and the lowest total force compared with its competitors.

**Total force:** The sum of all forces acting on the body from padding-contacted area.

**Peak force:** The highest force value of a unit area among the entire contacting area.



NBA stands for Next Best Alternative



# BREATHABILITY

To be comfortable, harnesses must stay dry and breathable when subjected to sweat.

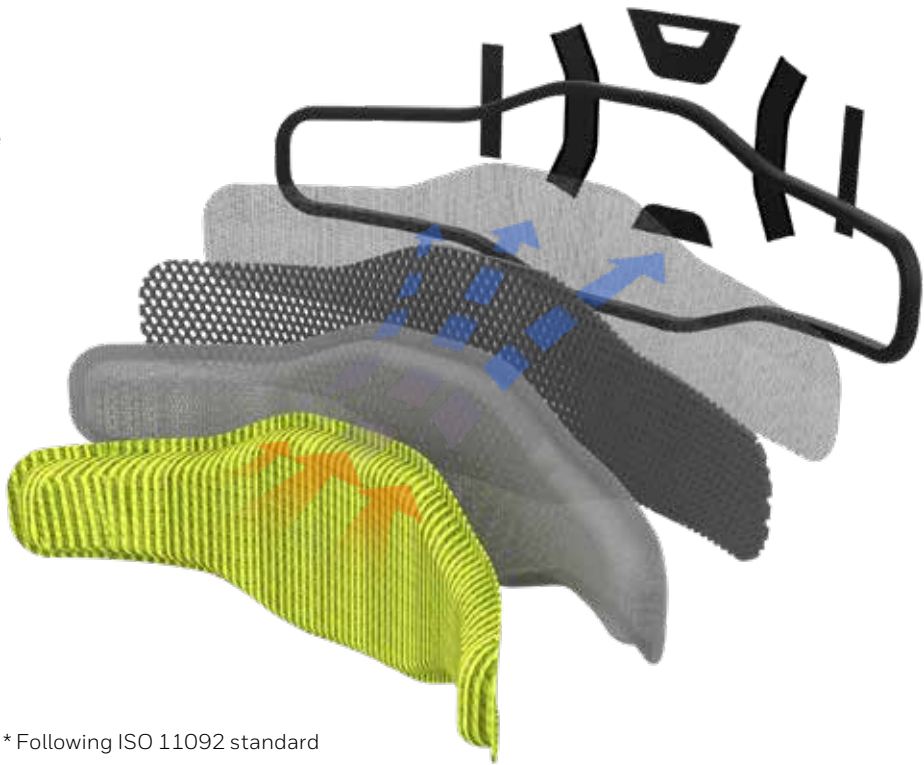
## PURPOSE OF THIS TEST

The aim was to test\* the padding material against water vapor resistance. A lower water vapor resistance means a lower barrier to water vapor. This proves the material is more breathable and more comfortable to wear.

*\*Test performed by a third party – SGS.*

## TEST METHOD

An electrically heated porous plate is covered by a liquid water-vapor permeable membrane. Water fed to the heated plate evaporates and passes through the membrane as vapor, so that no liquid water contacts the test specimen. With the test specimen placed on the membrane, the heat flux required to maintain a constant temperature at the plate level is a measure of the rate of water evaporation, and from this the water-vapor resistance of the test specimen is determined.



\* Following ISO 11092 standard

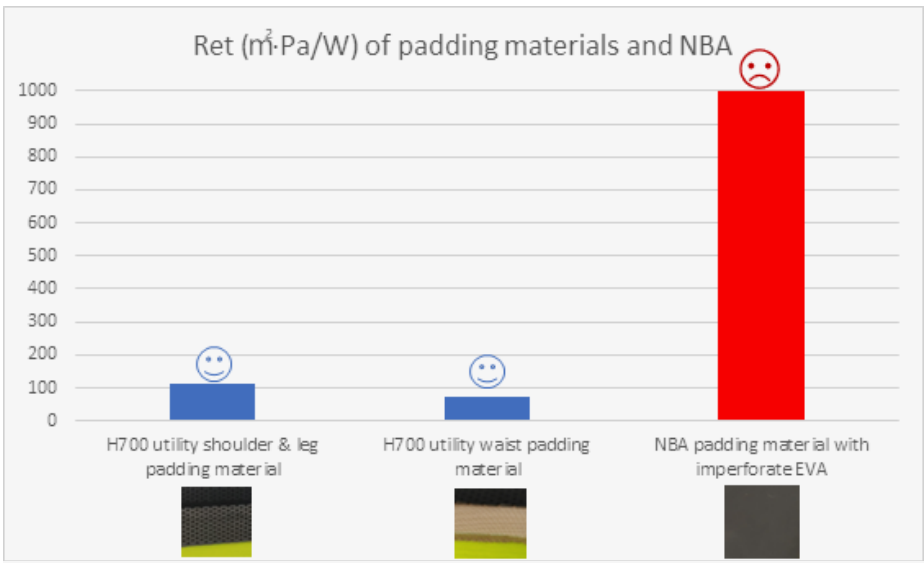
## TEST RESULTS

| SAMPLE NAME                                  | RET   |
|----------------------------------------------|-------|
| H700 utility shoulder & leg padding material | 114   |
| H700 utility waist padding material          | 72.4  |
| NBA padding material with imperforate EVA    | >1000 |

RET value = evaporative resistance of one unit area of a material. The lower the RET value, the cooler the material feel on the body.

## CONCLUSION

The water vapor resistance of the Miller H700 waist, leg and shoulder padding materials is much better than NBA padding material.



NBA = Next Best Alternative on the market.

# WHY YOU NEED THE MILLER H700

## | The dangerous world of working at height

### MAIN HAZARDS FOR WORKERS AT HEIGHT

- Worker fatigue / muscular fatigue
- Suspension trauma / slow rescue response time
- Harness not “buckled up” and / or adjusted correctly
- Not anchored (anchor point, back D-ring, lanyard with rebar hook, fall arrester)

### ROOT CAUSES OF FALLS

- Not keeping eyes and mind on task
- Fall protection equipment, tools are too heavy
- Poorly designed harness is heavy and constraining
- Harness / fall-protection equipment is counterintuitive

### CAUSES OF WORKER FATIGUE

- Working at height
- Physically-demanding repetitive work
- Total weight of personal protective equipment (PPE) increasing due to higher safety standards
- Non-ergonomic PPE – poor fit, constraining, non-breathable

### PROFESSIONS WITH SIGNIFICANT FALL FATALITIES

- Telecom workers
- Power energy workers
- Wind turbine workers



## HONEYWELL MILLER® H700 MODEL GUIDE

| MODEL | SKU     | DESCRIPTION                                | SIZE | LEG BUCKLES<br>ALUM | CHEST BUCKLE<br>ALUM | D-RINGS |       |        |          |           | INTEGRATED SRL<br>ADAPTOR | PIVOT LINK LEG<br>STRAP ADJUSTER | ROTATIVE BELT |
|-------|---------|--------------------------------------------|------|---------------------|----------------------|---------|-------|--------|----------|-----------|---------------------------|----------------------------------|---------------|
|       |         |                                            |      |                     |                      | BACK    | FRONT | SIDE D | SHOULDER | VENTRAL D |                           |                                  |               |
| IC2   | 1036760 | H700 IC2 ALUM QC FD                        | 1    | QC                  | QC                   | Alum    | Alum  | 0      | 0        | 0         | yes                       | yes                              | no            |
|       | 1036781 | H700 IC2 ALUM QC FD                        | 2    | QC                  | QC                   | Alum    | Alum  | 0      | 0        | 0         | yes                       | yes                              | no            |
|       | 1036783 | H700 IC2 ALUM QC FD                        | 3    | QC                  | QC                   | Alum    | Alum  | 0      | 0        | 0         | yes                       | yes                              | no            |
|       | 1036784 | H700 IC2 ALUM QC FD                        | 4    | QC                  | QC                   | Alum    | Alum  | 0      | 0        | 0         | yes                       | yes                              | no            |
| CC3   | 1036789 | H700 CC3 ALUM QC FD/SD                     | 1    | QC                  | QC                   | Alum    | Alum  | 2      | 0        | 0         | no                        | no                               | yes           |
|       | 1036800 | H700 CC3 ALUM QC FD/SD                     | 2    | QC                  | QC                   | Alum    | Alum  | 2      | 0        | 0         | no                        | no                               | yes           |
|       | 1036771 | H700 CC3 ALUM QC FD/SD                     | 3    | QC                  | QC                   | Alum    | Alum  | 2      | 0        | 0         | no                        | no                               | yes           |
|       | 1036773 | H700 CC3 ALUM QC FD/SD                     | 4    | QC                  | QC                   | Alum    | Alum  | 2      | 0        | 0         | no                        | no                               | yes           |
| CC5   | 1036785 | H700 CC5 ALUM QC FD/SD                     | 1    | QC                  | QC                   | Alum    | Alum  | 2      | 0        | 0         | yes                       | yes                              | no            |
|       | 1036793 | H700 CC5 ALUM QC FD/SD                     | 2    | QC                  | QC                   | Alum    | Alum  | 2      | 0        | 0         | yes                       | yes                              | no            |
|       | 1036787 | H700 CC5 ALUM QC FD/SD                     | 3    | QC                  | QC                   | Alum    | Alum  | 2      | 0        | 0         | yes                       | yes                              | no            |
|       | 1036788 | H700 CC5 ALUM QC FD/SD                     | 4    | QC                  | QC                   | Alum    | Alum  | 2      | 0        | 0         | yes                       | yes                              | no            |
| CC7   | 1036774 | H700 CC7 ALUM QC FD/SD<br>VD SHD           | 1    | QC                  | QC                   | Alum    | Alum  | 2      | 2        | 1         | yes                       | yes                              | no            |
|       | 1036775 | H700 CC7 ALUM QC FD/SD<br>VD SHD           | 2    | QC                  | QC                   | Alum    | Alum  | 2      | 2        | 1         | yes                       | yes                              | no            |
|       | 1036776 | H700 CC7 ALUM QC FD/SD<br>VD SHD           | 3    | QC                  | QC                   | Alum    | Alum  | 2      | 2        | 1         | yes                       | yes                              | no            |
|       | 1036777 | H700 CC7 ALUM QC FD/SD<br>VD SHD           | 4    | QC                  | QC                   | Alum    | Alum  | 2      | 2        | 1         | yes                       | yes                              | no            |
|       | 1036778 | ONE PULL SUSPENSION<br>TRAUMA STEPS (PAIR) |      |                     |                      |         |       |        |          |           |                           |                                  |               |
|       | 1036779 | REMOVABLE LUMBAR<br>PROTECTOR (EACH)       |      |                     |                      |         |       |        |          |           |                           |                                  |               |
|       | 1036780 | WATER-PROOF DUFFLE<br>BAG (EACH)           |      |                     |                      |         |       |        |          |           |                           |                                  |               |

Standards: EN 361:2002, EN 358:2018, EN 1497:2007  
 Certified to 140 kg

Scan the QR code to learn  
 more about the Honeywell  
 Miller H700 Series.





**For More Information**

[sps.honeywell.com](https://sps.honeywell.com)

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