THE FUTURE OF ERGONOMIC SAFETY

The Next Generation of Premium Full Body Harnesses

Honeywell Miller®
Miller H700 Series



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 fall 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 throughout the harness.

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

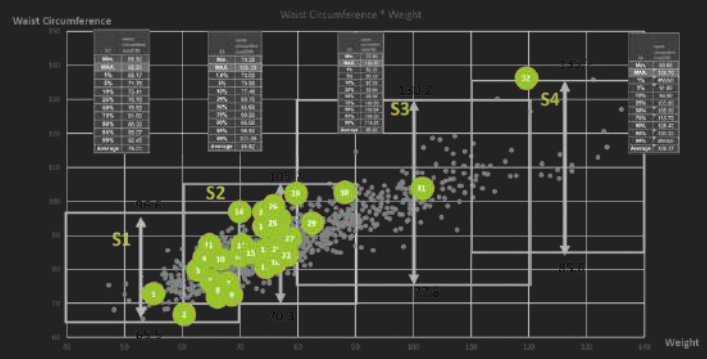


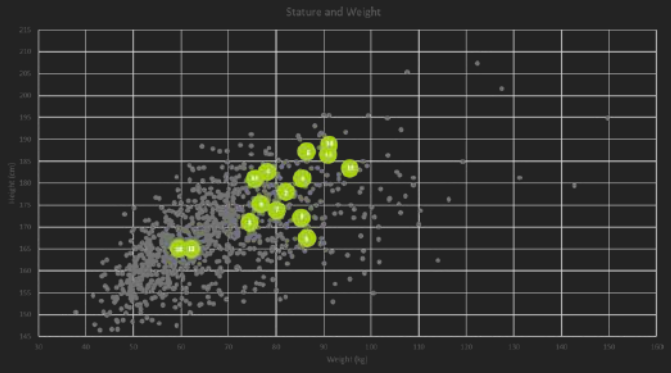
IC2

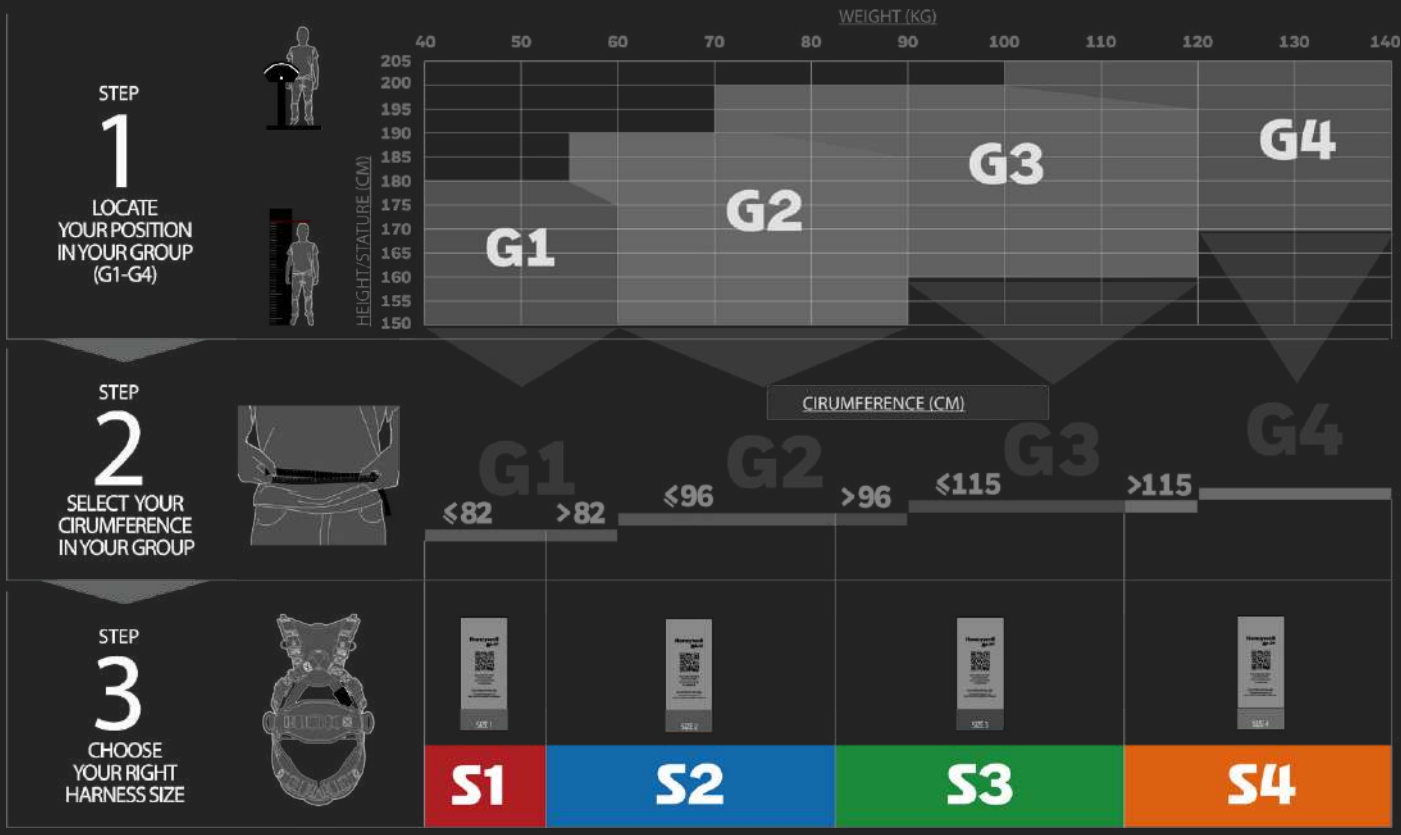
- Highly breathable, lightweight, ergonomic shoulder/back padding
- Integrated SRL adaptor
- Pivot link leg strap adjuster

REVOLUTIONARY SIZE CHART

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



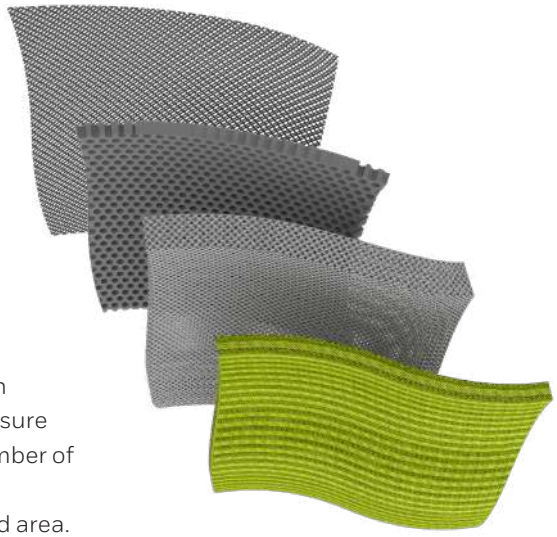




PRESSURE DISTRIBUTION

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

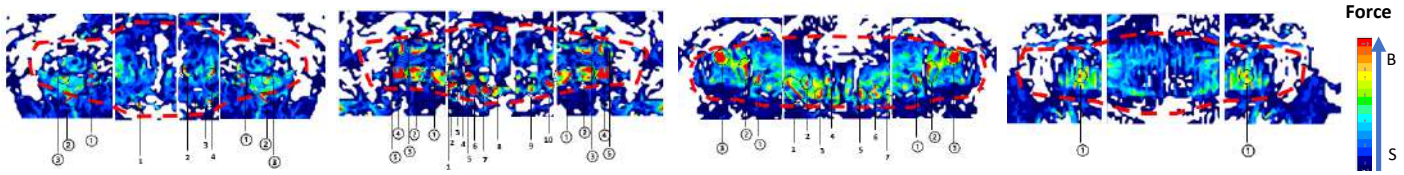
Among the four harnesses with waist padding, Miller H700 waist padding generates the most even pressure distribution and the lowest total force.

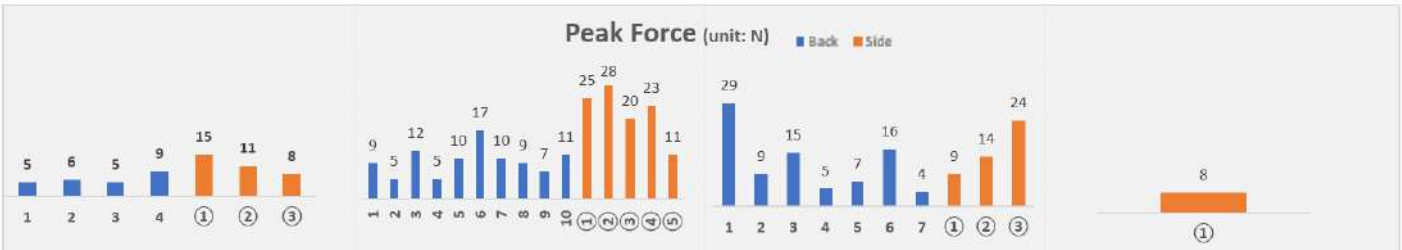
CONCLUSION

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.

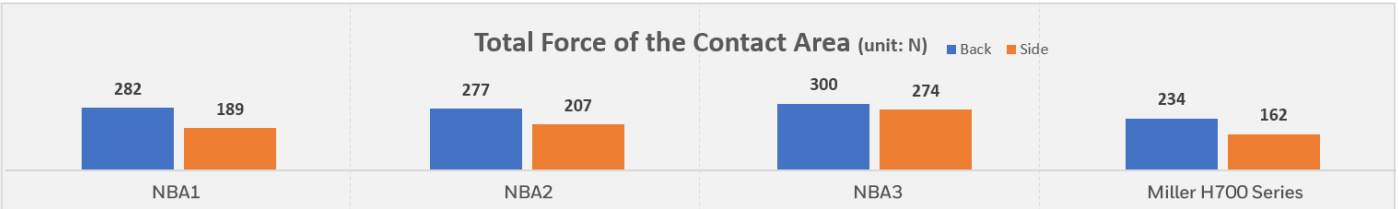
Total force: The sum of all forces acting on the body from padding-contacted area.

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





		NBA1	NBA2	NBA3	Miller H700 Series
Back	# of point	4	10	7	0
	Force Sum	25	95	85	0
Side	# of point	3	5	3	1
	Force Sum	34	107	74	8
Total (side+back+side)	# of point	10	20	13	2
	Force Sum	93	309	233	16



	NBA1	NBA2	NBA3	Miller H700 Series
Back	282	277	300	234
Side	189	207	274	162
Total (side+back+side)	660	691	848	558

NBA stands for Next Best Alternative

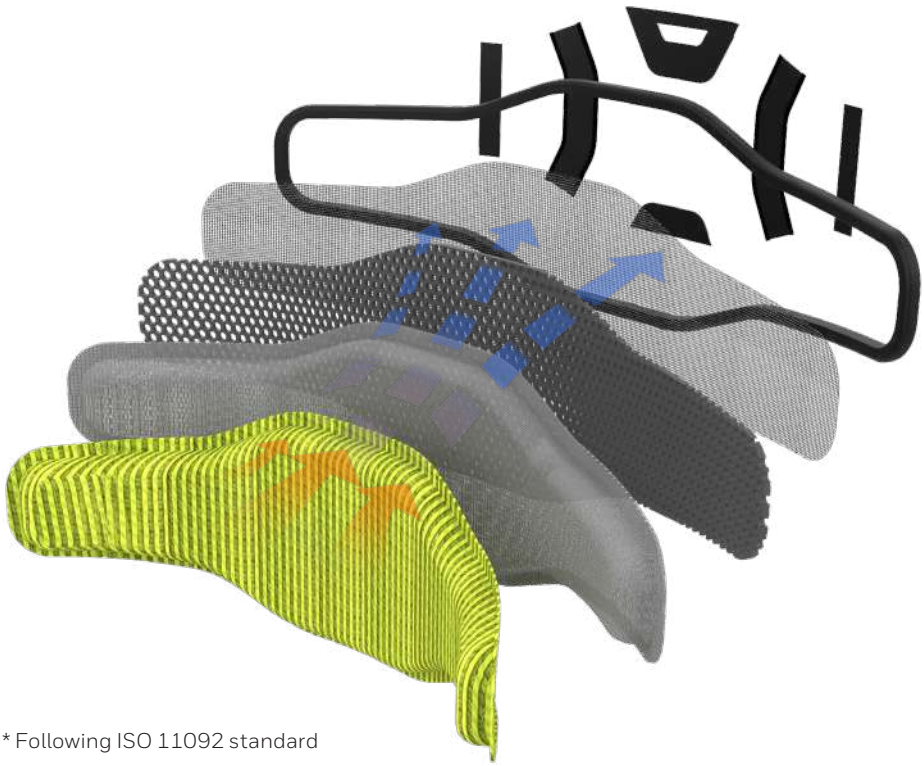
BREATHABILITY

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.*



* Following ISO 11092 standard

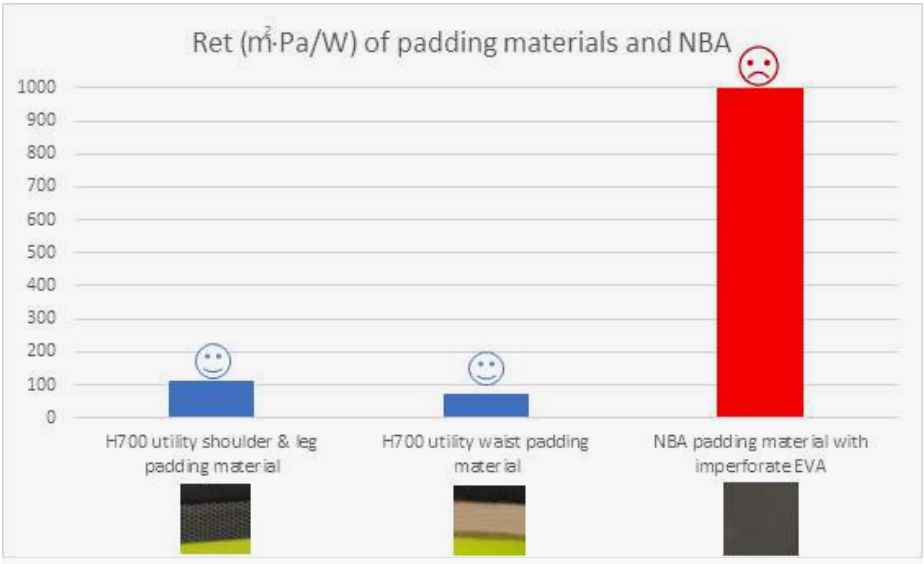
TEST METHOD

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.

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.



NBA = Next Best Alternative on the market.

CONCLUSION

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

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 ALUM	CHEST BUCKLE ALUM	D-RINGS					INTEGRATED SRL ADAPTOR	PIVOT LINK LEG 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 VD SHD	1	QC	QC	Alum	Alum	2	2	1	yes	yes	no
	1036775	H700 CC7 ALUM QC FD/SD VD SHD	2	QC	QC	Alum	Alum	2	2	1	yes	yes	no
	1036776	H700 CC7 ALUM QC FD/SD VD SHD	3	QC	QC	Alum	Alum	2	2	1	yes	yes	no
	1036777	H700 CC7 ALUM QC FD/SD VD SHD	4	QC	QC	Alum	Alum	2	2	1	yes	yes	no
	1036778	ONE PULL SUSPENSION TRAUMA STEPS (PAIR)											
	1036779	REMOVABLE LUMBAR PROTECTOR (EACH)											
	1036780	WATER-PROOF DUFFLE 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.**

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