



**HONEYWELL
FORGE**

WORKFORCE PRODUCTIVITY

PRODUCT INFORMATION NOTE

A workforce productivity solution for your deskless mobile workers. Provides access to expertise on-demand, visual step-by-step execution guidance, and knowledge transfer to transform the way field personnel operate.

What is Enterprise Performance Management?

EPM is a set of tools that collect, unify, and take action on operational data to optimize performance, sustainability, and safety at the enterprise level.

CHALLENGES

Plant owners are responsible for maintaining the highest standards of safety and productivity at all times; however, they often encounter many other day-to-day challenges such as the need to:

- Increase employee productivity
- Improve communication
- Reduce costs
- Maximized ROI on investments
- Manage skill gaps in the changing workforce

While these concerns aren't new, the focus and urgency has been increasing at an escalated rate. Instability of commodity prices, increasing retirements, tightening of headcount and the continued focus on quarterly results have affected the way we manage our facilities, our people, our technology and our budgets. From digital transformation to the rise of robotic support systems, one thing is clear: innovation and the adoption of technology are the essential building blocks for success.

SOLUTIONS

Honeywell Forge Workforce Productivity is part of the People Performance Management suite of industrial-focused products in Honeywell Forge, an Enterprise Performance Management tool. Honeywell Connected Industrials provides solutions that enable our customers to leverage their investments across multiple domains within their site. Whether it's the field technician who needs to talk to an expert, a field operator who needs immediate access to technical documentation or the need for automated workflows, Honeywell has a solution.



Honeywell Forge Workforce Productivity solutions are platform and device agnostic, enable information and knowledge on demand, in the field the moment you need it. Our solutions enable you to increase your worker productivity while enhancing safety so you can maximize your plant performance.

FEATURES AND BENEFITS

Digitization of Inspection Rounds

- Guided work instructions and procedures
- Visualization of documents to provide information when you need it
- Comprehensive workflow analytics
- Detailed reports summarizing rounds summary and any
- Collaboration optimization for faster decision making

Access to Remote Experts

- Instant access to a remote expert via video chat
- “Over the shoulder” view so the expert can see exactly what the field worker sees

Access to Video Procedures on the Go

- Capture complex or error prone tasks for training and support purposes
- Enables the creation of a site-based knowledge bank
- Provides new employees with access to work procedure videos when they need it.

Knowledge Transfer

- Provides new employees with access to work procedure videos when they need it
- Faster comprehension through learning while doing
- Coaching and knowledge transfer in real time

Honeywell Forge Workforce Productivity concentrates on the one element of your plant you rely on the most, your people.

Unlike your plant assets, your people are mobile and are the key enabler of your plant’s safety and productivity. Their skills vary by individual with each one learning and retaining knowledge differently. Honeywell Forge Workforce Productivity delivers an ecosystem of information, insight and collaboration, in real-time, for the field personnel, enabling all your plant personnel perform as well as your best performer.

Honeywell Forge Inspection Rounds:

Honeywell Forge Inspection Rounds provides work order, step-by-step procedures. The supervisor assigns work activities or permits digitally at the beginning of the shift or on-demand. The maintenance crew is directed to the appropriate asset to complete the task, hands free. For complex procedures, individual steps are provided on the screen to ensure the maintenance personnel has the information they need to complete the assigned task. Workflow Visualization has connectivity to many standard database systems like SAP, SQL so we can automate the closure of the work order and have consistent knowledge across the site.

Honeywell Forge Worker Assist:

Bring Expert Assistance to the Field

Honeywell Forge Worker Assist provides the field personnel with access to an expert via video chat regardless of whether the expert is local or in another country. Using voice commands, the field personnel makes a hands-free call and the expert sees and hears everything from the perspective of the operator wherever they are located. The expert can control the camera, lighting and capture audio, video or photos from the personnel’s perspective and even annotate on the personnel’s screen.

Access to Video Procedures on the Go

Enable the expert operator or maintainer to capture complex, plant specific or rarely executed tasks so that new employees can learn how to execute these procedures with assistance on-demand at the location in the plant when needed. This solution enables video and audio capture and playback, so the beginner can learn from the expert, even if they have retired. After capturing the task, the expert will use his voice to add key words so that the video is searchable. As the knowledge bank grows, field personnel can search for and playback videos before or while executing a complex task.

Honeywell Forge Intelligent Wearables:

Intelligent Wearables is a software solution suite built to run on a set of wearable and handheld technologies that provide your field personnel with connectivity, communications, information, data transfer and safety. The ability to leverage these solutions across multiple domains and applications enable you to increase your field personnel’s productivity from multiple perspectives, thereby enhancing the return on the investments you make.

Two versions of head-mounted devices based on Android are available, a ruggedized model and an intrinsically safe model. The ruggedize version, which is water, dust and drop proof and can optionally snap into safety helmets or attach to bump caps.

The intrinsically safe version is ATEX Zone 1 & CSA C1/D1 certified and can be used in wet, dusty, hot and/or dangerous environments. Both models can be used with safety glasses or corrective eyewear and provide a high-resolution micro display which fits just below the line of sight, views like a 7” tablet and is like an industrial dashboard: there when you need it and out of your way when you don’t. No scrolling, swiping, or tapping is required- just simple voice commands. Use it for remote mentor video calling, document navigation, guided workflow, mobile forms and industrial IoT data visualization.



Honeywell Support Services

Honeywell Connected Industrials Intelligent Wearables comes with worldwide, premium support services, designed to help our customers improve and extend the usage of their applications and the benefits they deliver, ultimately maintaining and safeguarding their advanced applications.

Honeywell provides a complete portfolio of service offerings to extend the life of your plant and provide a cost-effective path forward to the latest application technology. Honeywell services include:

- Software installation
- On-site engineering
- Migration
- Scope expansion

- Assessment
- Performance baseline and tuning
- Customized training

Because Outcomes Matter

Honeywell understands that when you make an investment, you have expectations and objectives behind that investment. In other words, you expect a specific set of outcomes from the investment you're making.

Honeywell Connected Industrials can offer outcome-based offerings so that those outcomes you expect are delivered. The solutions will be established around a mutually agreed set of KPI's and we are so confident in our results that our Honeywell Connected Industrials Programs come with an outcome based, fee adjusted schedule.

Technical Specifications of Intelligent Wearable Devices:

Core Platform and Functions	Intrinsically Safe (IS) Version	Ruggedized Version
Operating System	Android 8.1 (AOSP) + WearHF™ hands-free interface	Same as IS Version
Chipset	2.0 GHz 8-core Qualcomm® Snapdragon 625 with Adreno 506 GPU – OpenGL ES 3.1 & OpenCL 2.0	Same as IS Version
Memory	16 GB Internal Storage / 2 GB RAM / MicroSD Slot (max 64GB)	16 GB Internal Storage / 2 GB RAM / MicroSD Slot (max 256GB)
Included Applications	Document Navigator, Camera with Barcode Reader, Video Recorder, Media Player. Unmatched Noise Cancellation using four digital Microphones and advanced algorithms. Voice based operating system, local speech recognition in loud areas.	Same as IS Version
Languages Supported	English, Spanish, French, German, Italian, Portuguese, Russian, Mandarin Chinese, Japanese, Korean	Same as IS Version

Connectivity and Sensors	Intrinsically Safe (IS) Version	Ruggedized Version
Bluetooth	Bluetooth BT 4.1 LE (Low Energy)	Same as IS Version
Wi-Fi	802.11 a/b/g/n/ac – 2.4GHz and 5GHz	Same as IS Version
GPS and Location	GPS, GLONASS, BeiDou, Baidu A_GPS	Same as IS Version
IMU	9_DOF (3-axis accelerometer, magnetometer, and gyroscope), software	Same as IS Version

Battery	Intrinsically Safe (IS) Version	Ruggedized Version
Capacity	Capacity 3400 mAh Li_Ion, non-removable, rechargeable Charging cable contains an inline "safety box"	Capacity 3250 mAh Li_Ion, , rechargeable and field swappable
Battery Life	Full shift (8_10 hrs) with typical use	Full shift (9_10 hrs) with typical use

Technical Specifications of Intelligent Wearable Devices (Continued):

Physical Characteristics	Intrinsically Safe (IS) Version	Ruggedized Version
Weight	430 g	380 g
Ruggedization	Intrinsically safe, 2 meter drop, IP66, MIL_STD_810G, -20degrees C to +50 degrees C	2 meter drop, IP66, MIL_STD_810G -20degrees C to +50 degrees C
Dedicated Keys	Power key, application specific Action key	Same as IS Version
Ports	Ports 3.5mm audio, 1 micro_USB for data and charging	Ports 3.5mm audio, 1 micro_USB , 1 USB Type-C
Boom Arm	Adjust six ways for all head sizes, left or right eye compatible, display flips out of way when not in use	Same as IS Version

Displays	Intrinsically Safe (IS) Version	Ruggedized Version
Type	20° field-of-view, 1 meter fixed focus, 24-bit color LCD, 0.33 inch diagonal, outdoor visible. Appears size of 7" tablet, viewable in bright sunlight	Same as IS Version
Resolution	WVGA (854x480)	Same as IS Version

Audio	Intrinsically Safe (IS) Version	Ruggedized Version
Microphones	4 digital microphones with active noise cancellation Accurate voice recognition even in 95 dBA of typical industrial noise	Same as IS Version
Speaker	Internal 91 dB loudspeaker	Same as IS Version

Multimedia	Intrinsically Safe (IS) Version	Ruggedized Version
Camera	16 MP 4-image stabilized, PDAF with LED flashlight	Same as IS Version
Video	Up to 1080p @30fps. Codecs: VP8, VP9 and hardware encoding support for H.264, H.265 HEVC	Same as IS Version

Accessories	Intrinsically Safe (IS) Version	Ruggedized Version
Included	Overhead straps, rear pads and intrinsically safe inline safety box Hard hat clips for MSA Front and Full Brim Intrinsically Safe Ear Bud Hearing Protection Headphone rated at 33dB noise reduction rating (NRR) Earbud Foam Tips Mixed Bag	Overhead straps, rear pads and intrinsically safe inline safety box Hard hat clips for MSA Front and Full Brim Hard hat clips for Honeywell North Zone front brim Intrinsically Safe Ear Bud Hearing Protection Headphone rated at 33dB noise reduction rating (NRR) Earbud Foam Tips Mixed Bag
Optional	Battery Wall Charger - USA / EU / China / UK / Australia	Same as IS Version

Area Certifications	Intrinsically Safe (IS) Version	Ruggedized Version
	ATEX - II 2G Ex ib IIC T4 Gb II 2D Ex ib IIIC T135°C Db IP6X IECEX- Ex ib IIC T4 Gb Ex ib IIIC T135°C Db IP6X NEC500 - Class I, Division 1, Groups A,B,C,D T4 Class II & III, Division 1, Groups E,F,G T4	Not Applicable

System Requirements for Honeywell Forge Worker Assist:

Video Procedures:

- Honeywell Connected Industrials Intelligent Wearable (Intrinsically Safe/ Ruggedized Version)
- Administration portal requires Chrome version 65 and above
- 2.4GHz or 5GHz Wi-Fi Hotspot with internet connectivity only for download of procedure (Note: in offline view Wi-Fi is not needed)

Connectivity with Remote Experts:

- Handheld/Tablet/Smartphone/Intelligent Wearable
- Expert on Mobile or Desktop [Android 4.1 (Jellybean) or higher, iOS 9.0 or higher Windows 7.0 or higher] 2.4GHz or 5GHz Wi-Fi Hotspot with internet connectivity

System Requirements for Honeywell Forge Inspection Rounds:

- Handheld/Tablet/Smartphone/Intelligent Wearable
- Android OS 4.1+, or iOS 7+
- 2.4GHz or 5GHz Wi-Fi Hotspot with internet connectivity only for download of procedure (Note: in offline view Wi-Fi is not needed)

For More Information

To learn more visit [Honeywell Forge Workforce Productivity](#) or contact your Honeywell Account Manager.

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Honeywell Connected Enterprise

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