

Using Automation to Attract Millennials to Your Workforce

White Paper

*Looking for ways to appeal to the next generation of workers as Baby Boomers Retire?
Here's how an investment in automation technology can help.*

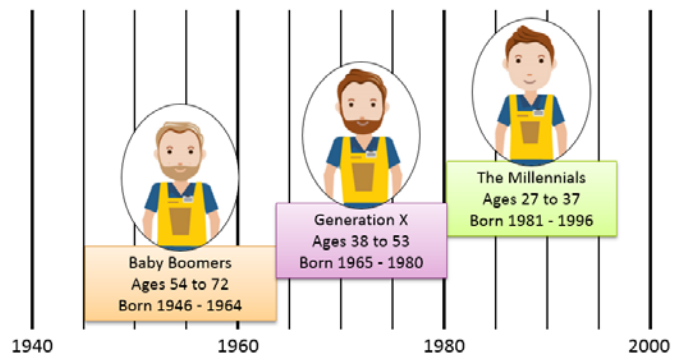


Introduction

The mass exit of Baby Boomers from the workforce—including their long-held jobs in manufacturing and warehousing—has been well documented in both business and mainstream media. Both Pew Research¹ and *The Washington Post*² estimate that 10,000 Americans born between 1946 and 1964 retire every day. Yet, at the same time, the number of supply chain and manufacturing jobs is steadily increasing, even as overall U.S. job growth has slowed.³

Enter the Millennials, which Pew recently defined as those persons born between 1980 and 1996⁴. By 2019, bolstered by an influx of immigrants, they'll be 73 million strong and will overtake Baby Boomers in population as the more mature generation shrinks to 72 million.⁵ (They already surpassed Generation X—persons born between 1965 and 1980—as the largest portion of the workforce back in 2015.⁶)

The Generation Age in 2018



Clearly there are loads of Millennials around—40% of them with bachelor's degrees⁷ (and around 15% of them saddled with student loan debt and still living with mom and dad⁸)—so surely manufacturers and distribution center operators won't have any problem finding skilled workers to replace those retiring Baby Boomers, right?

Wrong.

In the National Association of Manufacturers' *Fourth Quarter 2017 Manufacturers' Outlook Survey*, 72.9% of respondents said that their top business challenge is the "inability to attract and retain a quality workforce," and "79.8% of respondents said they have unfilled positions within their company that they are struggling to fill with qualified applicants."⁹ Likewise, the *2017 Annual Industry Report* produced by MHI (the supply chain and material handling association) found that 63% of supply chain

¹ Pew Research Center, <http://www.pewresearch.org/fact-tank/2010/12/29/baby-boomers-retire/>

² The Washington Post, https://www.washingtonpost.com/news/fact-checker/wp/2014/07/24/do-10000-baby-boomers-retire-every-day/?utm_term=.8ee218921004

³ Council of Supply Chain Management Professionals, <http://www.supplychainquarterly.com/news/20160629-while-overall-us-job-growth-weakens-demand-for-supply-chain-managers-remains-strong/>

⁴ Pew Research Center, <http://www.pewresearch.org/fact-tank/2018/03/01/defining-generations-where-millennials-end-and-post-millennials-begin/>

⁵ Pew Research Center, <http://www.pewresearch.org/fact-tank/2018/03/01/millennials-overtake-baby-boomers/>

⁶ Pew Research Center, <http://www.pewresearch.org/fact-tank/2015/05/11/millennials-surpass-gen-xers-as-the-largest-generation-in-u-s-labor-force/>

⁷ Pew Research Center, <http://www.pewresearch.org/fact-tank/2017/05/16/todays-young-workers-are-more-likely-than-ever-to-have-a-bachelors-degree/>

⁸ Pew Research Center, <http://www.pewresearch.org/fact-tank/2017/05/05/its-becoming-more-common-for-young-adults-to-live-at-home-and-for-longer-stretches/>

⁹ National Association of Manufacturers, <http://www.nam.org/Data-and-Reports/Manufacturers-Outlook-Survey/2017-Fourth-Quarter-Manufacturers-Outlook-Survey/>

professionals responding to its survey stated that “hiring and retaining a skilled workforce continues to be the biggest obstacle” faced by their businesses.¹⁰

So, why aren’t Millennials rushing to fill all the job openings in supply chain and manufacturing?

One reason is that neither industry has an especially attractive image in the mind of the American public. Warehouses are imagined as being dark and dusty; manufacturing as boring, repetitive and outdated. None of this is true in today’s modern distribution centers and manufacturing facilities, but Millennials are not immune to these impressions.

They’re also drawn to jobs that allow them to use their inherent comfort, familiarity and adeptness with technology. After all, they grew up during the age of the Internet explosion and were still young adults when the iPhone debuted in 2007. Indeed, “millennials grew up as digital natives; not only are they adept at using technology, but they find comfort in it, and are attracted to companies that utilize it fully.”¹¹

Therein lies one solution for attracting the Millennial workforce to manufacturing and warehousing careers: investment in technology, such as automation. Even a semi-automated solution like an automated storage and retrieval system (AS/RS)—like a horizontal or vertical carousel, or a vertical lift module (VLM)—can be a good stepping stone for operations testing the automation waters. Although investing in such systems as a method of workforce recruitment is a cost justification far outside what most operations look at when considering the return on investment from this type of capital expenditure, there are a variety of ways that AS/RS technologies can appeal to Millennials, as well as increase an operation’s productivity.



Vertical Carousel & Shuttle VLM technology at work in a parts department

¹⁰ MHI, <https://www.mhi.org/publications/report>

¹¹ Manufacturing.net, <https://www.manufacturing.net/news/2018/01/marriage-millennials-and-manufacturing>

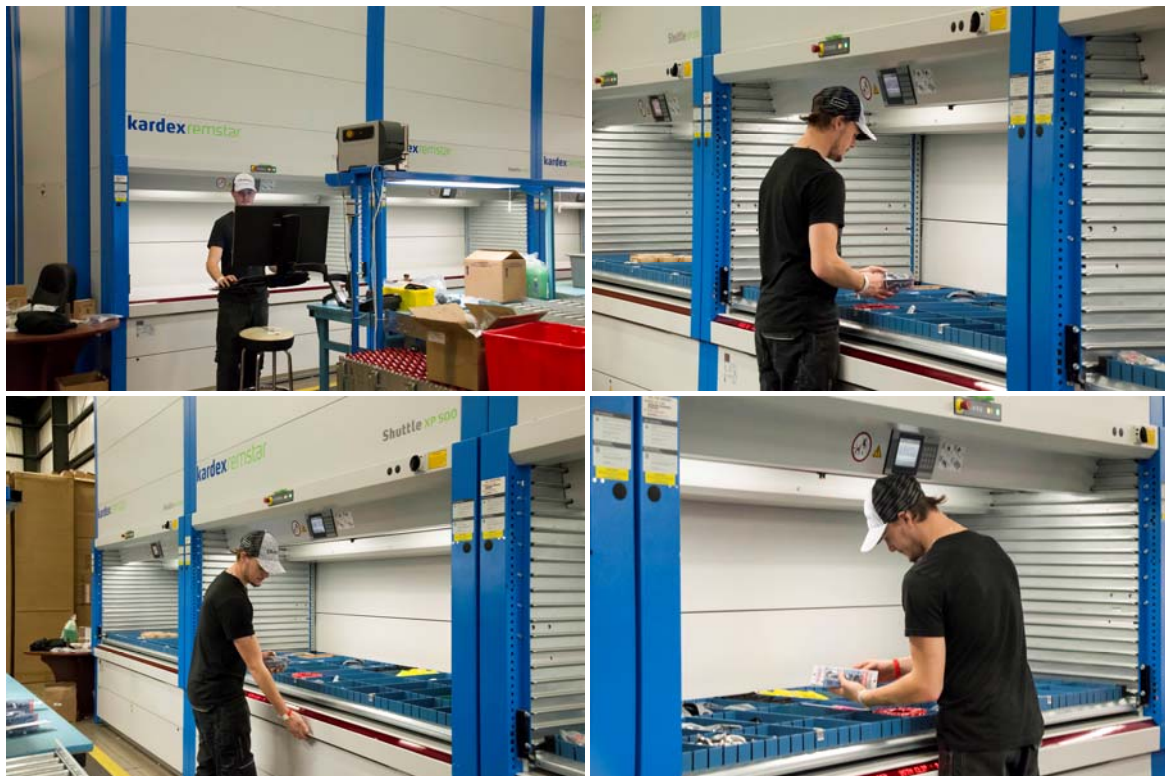
The Millennial Mindset: A Good Match for Automation

Although Millennials are often portrayed as only wanting to work for riskier, start-ups or high-flying, tech-based companies—which often have the reputation of being highly innovative and cutting edge (not to mention housing ping-pong tables and basketball courts)—it turns out that’s not necessarily true.

In a Deloitte Greenhouse Business Chemistry group study seeking to identify and understand the difference in work preferences among Baby Boomers, Generation X and Millennials—and drawing from a survey size of nearly 20,000—the researchers were surprised to find:

- Nearly 60% of Millennials could be characterized as having either a methodical, practical work style, or a quantitative, competitive work style
- Millennials are also significantly more introverted and less comfortable with ambiguity and risk in the workplace than Baby Boomers or Generation X, perhaps explaining their frequently noted desire for constant, ongoing feedback from superiors about their performance¹²

Additionally, in a recent APICS survey¹³ of 676 Millennials aged 22 to 37 and currently working in supply chains, 75% of respondents actively sought a career in supply chain, and 66% enjoy their jobs specifically because they get to work with the latest technologies—such as automation.



Shuttle VLMs with Pick to Light Technology in a distribution facility

¹² Deloitte, <https://www2.deloitte.com/us/en/pages/about-deloitte/articles/press-releases/deloitte-greenhouse-millennial-study.html>

¹³ APICS, <http://www.apics.org/millennials>

Automation and Gamification

As part of the generation that grew up with video games as a ubiquitous form of entertainment, it's been suggested that before age 21 today's average American has spent close to 9,000 hours playing video games.¹⁴ Automated systems with computerized or touchscreen human-machine interfaces (HMIs) therefore not only don't phase Millennials, they actually prefer them.

Automated picking machines also support Millennials' desire for qualitative, ongoing feedback. That's because such systems deliver information about required tasks and their rate of completion through gamification—"the use of game design techniques and mechanics in a non-game context to solve problems and engage users."¹⁵—as the on-board HMI can be programmed to display picking rates at that machine. When several of these automation solutions are arranged in a pod, a separate monitor can display performance rates by each picker in the zone or within the facility, so operators know how their productivity compares to that of their colleagues.

Also adding to the gamification effect, these automated solutions are equipped with indicator lights that illuminate the item's location and pick quantity required. Working almost like a video game (grab the item, press the button to confirm the pick, move to the next item—and see how fast you can complete these steps). Not only do light directed systems they cut the time spent searching for a specific stock keeping unit (SKU) upon arrival at the pick face, they make the process more fun.



Pick to Light Technology: Light Pointer



Transaction Information Center

Automation Accommodates Millennials' Desire for Flexibility

Although Millennials are often stereotyped as job-jumpers who switch employers every year or two to feed their sense of entitlement to a fast-tracked career, the 2017 Deloitte Millennial Survey found otherwise. One of the key takeaways from the survey, which polled nearly 8,000 members of the demographic from 30 different countries, is that what Millennials want from employers is "freelance flexibility with full-time stability."¹⁶

¹⁴ Inc., <https://www.inc.com/ryan-jenkins/how-to-gamify-career-paths-to-retain-and-engage-millennials.html>

¹⁵ Ibid.

¹⁶ Deloitte, <https://www2.deloitte.com/global/en/pages/about-deloitte/articles/millennialsurvey.html>

However, although they enjoy the stability of a regular paycheck, they don't want jobs that require them to clock in and out at a specific time—like the ones commonly found in shift-based work with manufacturing and warehousing operations. According to the report's executive summary:

Such arrangements are not simply nice to have, but are strongly linked to improved performance and employee retention. For example, those [Millennials] in organizations that offer a high degree of flexibility in working arrangements seem to reward their employers with higher levels of loyalty. In highly flexible working environments, the difference between those who see themselves leaving within two years (35%) is just two points above those anticipating to stay beyond five years (33%)—among those in the least-flexible organizations, there is an 18 point gap (45% versus 27%). The difference is significant.

Because automation can be used to optimize an existing labor force, increasing productivity from 200% to 600%, systems like horizontal and vertical carousels and VLMs support flexible staffing measures by enabling just one worker to handle the picking assignments of multiple operators. With automation in place, a company can comfortably allow all its employees—not just Millennials—greater flexibility in choosing when they want to start and finish work, or to schedule variable shift schedules that give employees more time off.

And that's what people across all generations want, according to research described in the July/August 2017 edition of *WERC Sheet*, a publication by the Warehousing Education and Research Council (WERC).

Because Millennials are also known for placing high importance on quality of time off and the ability to dedicate themselves to causes and projects they are personally passionate about, they need scheduling that enables that. And, as it turns out, non-millennial workers prefer alternative scheduling too, [Managing Partner of Core Practice John] Frehse notes.

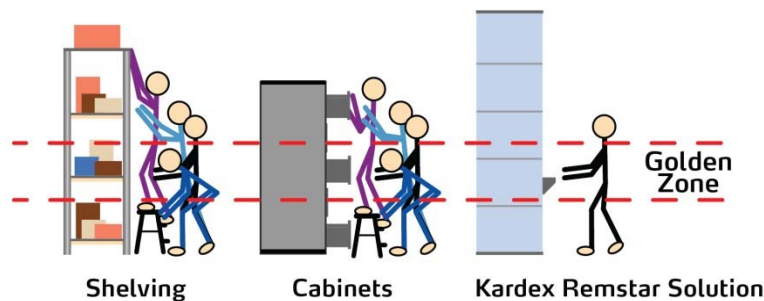
*"When companies bring in a third-party to survey their workforce anonymously, they find out the truth," he says. "When we conduct such a survey, we ask employees to rate a variety of shift schedules that we've already vetted with the company as being workable possibilities from a business perspective. Ultimately, what we've found is that people across all generations are not saying, 'I want to work 12-hour shifts.' They're saying, 'I don't want to work 8-hour shifts anymore.'"*¹⁷

¹⁷ Warehouse Education and Research Council, http://www.werc.org/assets/1/Publications/WERC_Jul-Aug2017_web.pdf

Bonus Benefit of Automation for Current Workers

Looking at the benefits for an operation's entire workforce—inclusive of Millennials—an investment in an automated storage system that makes picking processes less strenuous and more productive might also entice Baby Boomer employees to delay retirement a bit longer. With skilled labor continuing to be scarce and likely to remain so for a while, more companies are actively discouraging their most mature workers from retiring. Roughly 19% of manufacturers are currently asking their employees to consider gradual retirement, as well as offering job sharing, flexible schedules or shorter work weeks.¹⁸

Adding these types of goods-to-person automation allow workers to pick items at the proper ergonomic work height, known as the “golden zone,” or approximately waist-high. Items presented at this height are easily picked without stretching, reaching, stooping or bending.



For older workers in particular, the automation creates a safe working environment that minimizes injuries from bending, reaching and stretching. Further, walking and climbing are no longer necessary. Not only does this reduce fatigue, but also the chance of worker injury is substantially lessened. In turn, absenteeism, insurance premiums and claims for worker's compensation will be reduced.



Shuttle VLMs support order fulfillment in a distribution facility

¹⁸ The Washington Post, https://www.washingtonpost.com/news/on-small-business/wp/2017/07/18/factories-to-baby-boomers-please-keep-working/?utm_term=.279fb418ee3e

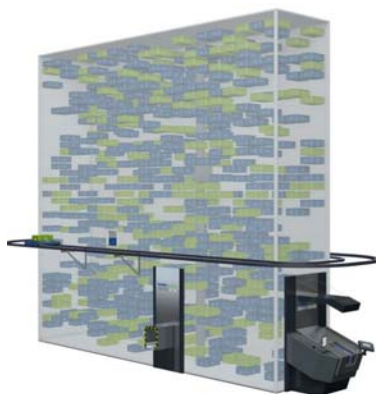
Automated Storage and Retrieval Systems Defined

Horizontal Carousels – Consisting of bins mounted on an oval track rotate horizontally to deliver stored items to an operator. These automated storage and retrieval systems save up to 60% of floor space when compared to standard shelving and rack.



Vertical Carousels – Comprised of a series of shelves rotating around a track—similar to a Ferris wheel—these automated storage and retrieval systems quickly deliver stored items to an ergonomically positioned work counter at the operator's command. When compared to static shelving and rack, they save up to 75% of floor space.

Vertical Lift Modules (VLMs) – An enclosed automated storage and retrieval system that incorporates two columns of trays with a central inserter/extractor that automatically locates and retrieves stored trays from both columns, then presents them to the operator at a waist-high pick window. These systems save up to 85% of floor space compared to static shelving and rack.



Vertical Buffer Modules (VBM) –In the middle of a multi-segment shelving system is an aisle, where a moveable mast with a telescopic gripper operates. The control unit sets the gripper in motion picking a bin and transporting it to a picking station.

About Kardex Remstar

Kardex Remstar, LLC, a company of the Kardex Group, is a leading provider of automated storage and retrieval systems for manufacturing, distribution, warehousing, offices and institutions. For information about the company's dynamic storage solutions, call 800-639-5805 or visit www.KardexRemstar.com.