

## Effective Use of Injury Prevention Specialists

### What's the Risk?

Schneider Electric Global Supply Chain (GSC) sites represent many different types of work including manual assembly, fabrication, painting, molding, automated assembly and warehouse distribution centers. In the past, Schneider Electric experienced a tremendous amount of manual material handling (MMH) being performed at all locations which presents a high risk of low back and upper extremity strain. Through various engineering controls, the amount of MMH has decreased significantly. However, some locations within Schneider Electric are still faced with significant MMH tasks, primarily in shipping and receiving areas at sites and distribution centers.

In addition, although many manufacturing sites have turned to automation, there are still manufacturing sites that primarily conduct manual assembly of products which often requires frequent handling of very small parts, pinch grips to place parts into the product and applied force to snap parts into place. This results in a high risk of carpal tunnel, trigger finger, and other hand and finger disorders. Additionally, some sites fabricate cabinets or utilize larger components that weigh more than Schneider's imposed lifting limit of 26 lbs. While engineering controls are the first solution in these instances, some tasks do not lend themselves to these types of controls and the remaining manual job tasks create a significant risk of back and shoulder injury.



## Explanation of ErgoPlus Onsite Injury Prevention Specialists

ErgoPlus (recently merged with Briotix Health) deploys onsite injury prevention specialists (IPSs) with training as certified athletic trainers, bringing the best principles of sports medicine into the workplace. The approach is proactive and allows Schneider Electric to recognize injury warning signs and prevent them from growing into an injury. These specialists are intended to maximize the health and wellbeing of employees and engage them one-on-one to identify and resolve the root cause of fatigue and discomfort.

## Goals of Injury Prevention Specialists at Schneider Electric

Schneider Electric recognizes that site safety employees may not always have a background in ergonomics or medicine, and therefore, other professionals better equipped to handle early reporting of discomfort are needed. The use of such professionals ensures reports of early discomfort are acknowledged and responded to in a timely and appropriate manner. Early reporting of discomfort is a powerful way to prevent musculoskeletal disorders (MSDs) and is a primary focus of Schneider's MSD prevention efforts.

To mitigate potential claims, the specialists approach injury prevention from a variety of different angles, such as through job coaching, program development and risk management. Onsite IPSs also serve as a supportive safety presence on job sites. They offer advice and act as a contact so when employees report early discomfort, they can act immediately. The onsite IPSs for Schneider Electric are intended to assist anyone at the site, including contractors.

## Application of Injury Prevention Specialists at Schneider Electric

Schneider Electric has engaged with ErgoPlus for more than 30 years. Like most implementation processes, IPSs were proposed, justified and accepted for piloting at a few sites to test their effectiveness. Individual sites within Schneider Electric at the time could choose whether to use the injury prevention services, as the sites pay for the service themselves (i.e., this is not a corporate-owned process). Success seen when using the IPSs is shared among Schneider sites in a variety of ways. The GSC sites hold a monthly roundtable meeting where valuable practices are shared. The ErgoPlus associates also are truly embraced as part of the Schneider Electric safety team which lends itself to proactive sharing of ideas, successes and challenges among all the sites. Schneider has found the best testimony is a success story, such as a reduction in the OSHA recordable rate seen at the sites, which generates more interest and more sites steadily opting into the IPS service.

Alternatively, the cost of implementing an IPS may be viewed as a barrier for some sites. Instead they opt to use an internal Schneider safety professional to perform such services. Sites without an IPS onsite generally utilize a variety of proven approaches including bringing in a trigger point massage therapist to provide therapeutic massage, utilizing various modalities such as ice or hot packs, providing employee handouts for specific MSDs, stretches, and review and/or assessment of the job task to correct any ergonomic concerns.

Schneider Electric has found the value of an onsite IPS becomes clear once these sites experience an episode or two of an employee visiting the doctor for a minor ache or pain that could have been handled onsite. In these instances, leadership buy-in to the program generally follows quite quickly.

## Impacts

Since implementing the IPS process, the number of recordable MSD events has significantly dropped at the respective sites. Schneider Electric specifically experienced dramatic reductions in workers' compensation costs when assessing data from several sites. In year one of implementation, workers' compensation costs were 14% less than projected, in year two, costs were 47% less than projected, in year three, costs were 76% less than projected, and in year four, costs were 78% less than projected, in comparison to workers' compensation costs incurred at sites without onsite services. In another analysis based on data from one site, an 80% reduction of sprains/strain medical cases was found in just two years of IPS implementation. Another site experienced a 20-year downward trend where the number of MSD cases went from 34 to zero, and they have maintained zero cases for another 10 years. Yet another example was a site that saw a reduction in OSHA recordables from 30 down to zero in five years.

Not surprisingly, the number of early reports has risen, which is a positive consequence as this allows for the opportunity to 'catch' discomfort before it becomes an injury. Schneider Electric now can learn about problems 'upfront' rather than employees waiting until they need medical care and, more likely, surgical intervention for their injury.

By providing a safe space through the IPS process of early reporting, the trust level also has increased. Employees are more willing to speak up not only about ergonomic issues but also about safety issues. Additionally, safety managers now have more time to work on tasks they feel more comfortable and are better trained to complete, such as regulatory oversight, assessments, paperwork and other activities.

In terms of return on investment, ErgoPlus has identified a calculation indicating the estimated cost savings for each resolved case of early discomfort. This calculation is simple to understand, conservative in practice and based on credible cost information on MSDs. The methodology is based on the finding that each work-related early report that resolves successfully is estimated to avoid \$7,318 in costs associated with the potential injury and is based on the following assumptions:

- The average total cost of an MSD is \$73,185 (based on OSHA's Safety Pays Calculator)
- 10% of early discomfort reports would have become OSHA recordable without early intervention (a conservative estimate)

This does not include a variety of indirect costs such as wages paid to a replacement worker, overtime and training costs, lost productivity, and clean-up, repair and replacement costs of damaged material, machinery and property. Nor are the factors of OSHA fines, third-party liability and legal costs, worker pain and suffering,

and loss of goodwill from bad publicity considered. All in all, Schneider Electric feels the \$7,318 figure as a cost avoidance amount to be very reasonable.

With the use of the ErogPlus Industrial software, sites can track their savings at any time as it will indicate the year-to-date savings based on the number of resolved cases. Workers' compensation costs have also decreased dramatically at all sites that are effectively using this service. These savings continue to be realized years after the implementation of the IPS.

### Lessons Learned

Schneider Electric has learned to identify the 'sweet spot' in terms of the number of hours to have onsite support from the IPSs. A rule of thumb Schneider has implemented is about four hours of IPS time per 100 employees. However, this varies from site to site depending on the work schedule. If it is not frequent enough (i.e., only once per week) it is difficult for the specialists to determine a cadence of seeing employees and to be available to all employees across all shifts. To address this, the site IPS also agrees to complete remote sessions via phone or video similar to a telehealth visit. Employees appreciate the quick response and the IPS often serves to help the employee determine whether the event is urgent or not. By providing advice and care immediately, the employees are generally content to wait to see the IPS in person.

Many of Schneider Electric's large sites (500-1,000 employees) will have onsite assistance for two, three or four full days or even more if the site being served has shifts throughout the entire day and night. Many sites have had to get creative with IPSs' hours to service multiple shifts to ensure coverage is provided to all at least once per week. Coverage twice per week per shift for even a few hours is a great goal if it can be achieved. Schneider quickly found the additional cost of having specialists for more hours was more than offset by the number of early discomfort reports resolved onsite, versus going to the doctor for care and subsequently becoming a workers' compensation claim, as well as an OSHA recordable injury.



Schneider's **purpose is to create Impact** by empowering all to **make the most of our energy and resources**, bridging progress and sustainability for all. At Schneider, we call this **Life Is On**. Our mission is to be the trusted partner in **Sustainability and Efficiency**. We are a **global industrial technology leader** bringing world-leading expertise in electrification, automation and digitization to smart **industries**, resilient **infrastructure**, future-proof **data centers**, intelligent **buildings**, and intuitive **homes**. Anchored by our deep domain expertise, we provide integrated end-to-end lifecycle AI enabled Industrial IoT solutions with connected products, automation, software and services, delivering digital twins to enable profitable growth **for our customers**. We are a **people company** with an ecosystem of 150,000 colleagues and more than a million partners operating in over 100 countries to ensure proximity to our customers and stakeholders. We embrace **diversity and inclusion** in everything we do, guided by our meaningful purpose of a **sustainable future for all**.



Briotix Health is a national company integrating injury prevention, ergonomics, employee wellness and physical rehabilitation services into the workplace. Briotix combines key tools, techniques and science from the fields of Ergonomics and Physical and Occupational Therapy and Athletic Training, with modern technologies that transform the cost and quality of services. Briotix provides a management platform for making meaningful investments in labor to provide a defensible competitive advantage and a long-term strategic advantage.



For three decades, ErgoPlus has been a trusted partner for companies of all sizes, offering top-tier injury prevention solutions and cutting-edge software to promote the creation of safer, healthier and more productive work environments. ErgoPlus offers a range of services, including ErgoLaunch, ErgoBlitz and ErgoPlus Industrial software, each designed to meet the unique needs of their diverse clientele.

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