



Timing is Everything for Medical Supplier

For reliable, on-time delivery of implants and orthopedic products, Zimmer International Logistics turns to the logistics suite from AEB.

Zimmer is the global market leader for orthopedic products and has several production facilities around the world. Sites in the U.S. and Europe (Switzerland, Ireland, France) ship artificial hip and knee joints, implants, plates and nails for emergency surgery and operation kits with surgical instruments to Eschbach, near Freiburg in southwestern Germany. The state-of-the-art logistics center in Eschbach then supplies Zimmer customers in Europe, Africa and the Middle East.

Zimmer International Logistics distinguishes between direct shipments to hospitals in Germany and Switzerland and shipments to its own sales affiliates or distributors elsewhere in Europe and in countries such as South Africa, India, Korea and Jordan.

Zimmer International Logistics offers customers in Germany and Switzerland a special service: submit orders by 5 p.m., and by 6 p.m. the orders will be processed – picked, packed and ready to go. This is a narrow time window given the volume of some 1,000 shipments daily. “ASSIST4 from AEB ensures flawless and fluid internal logistical processes,” assures systems operations

supervisor Andreas Berger. The hospitals typically receive the shipments between 2 and 8 a.m.

Reliability for sensitive processes

To ensure that this process is carried out with the greatest possible precision, Zimmer International Logistics decided in the spring of 2010 to implement the ASSIST4 logistics suite from Stuttgart software developer AEB. Thino Baumer, director of distribution at Zimmer International Logistics, recalls: “When we evaluated ASSIST4 at the start of the project, we saw that the standard version already met 80–90% of our requirements. The ASSIST4 platform provides reliable support for our existing processes and allows us great flexibility in responding to the needs of the markets.”

Transport manager Nadin Stauffer explains why reliable processing in the distribution center is so important: “The Swiss customs office closes the border at 9 p.m. If we had any delays in processing the shipment here, the truck carrying our consignment from Eschbach would not reach the Swiss border

in time. That would mean that none of the hospitals in Switzerland would get their products the next day. Thanks to ASSIST4, we can be sure we’ll process all orders by 6 p.m. and the last carrier will leave the loading dock by 6:30 p.m.”

Thino Baumer makes the essential point: “The shipments to hospitals in Germany and Switzerland are extremely time-sensitive. In the past, we often had to manually intervene to meet our shipping deadlines. Thanks to AEB, our shipment processing is now smoother and more reliable.”

ASSIST4 as quality controller

All the shipments for the direct market are finalized at the seven packing stations. This means printing the package content list and delivery note and placing them in the package, then printing and affixing the carrier labels. The package is then diverted to a different conveyor, where the staff uses a handheld scanner to “marry” the package with the cart for the appropriate carrier (GLS, Go, Swiss Post, TNT Innight). This prevents misallocations, since ASSIST4 immediately generates an error if the carton is placed on



All shipments for the direct market are finalized at the seven packing stations: package content list, delivery note and carrier labels are printed and attached.

the wrong cart. The approximately 150 individual shipments for Switzerland are then consolidated into a collective consignment. An average of 500 shipments each day are sent to Zimmer affiliates in Europe, Russia and Turkey and exported throughout the world. Large orders are harder to plan in advance. An example is Saudi Arabia, where the state issues all orders centrally. "Such shipments can include up to 40 pallets," says transport specialist Melanie Hanauer, who works with ASSIST4 every day.

At two packing stations, the software supports the consolidation of shipments to Zimmer sales affiliates in Italy, France, Spain, the UK or Finland and exports outside the EU to destinations in the Middle East and Africa. The pallet positions are managed so that the packages are sorted on the shelves by consignee. As the pallet is assembled, ASSIST4 checks to make sure no package or consignment has been misallocated. The warehouse employees build up the pallets on a scale embedded in the floor. If someone tries to post a UK package to a consignment for Russia, ASSIST4 generates an error. If a maximum pallet height has been defined in the system – the height of pallets sent by air freight to Turkey may not

exceed 80 cm, for example – the employees may need to distribute the packages among two pallets.

The team in the transport department uses ASSIST4 to select completed shipping pallets. They create the consignments and print the required shipping labels. If the consignment is an export, they initiate an export declaration. The customs office transmits the EAD, which is then printed out.

Fluid. Flawless. Flexible.

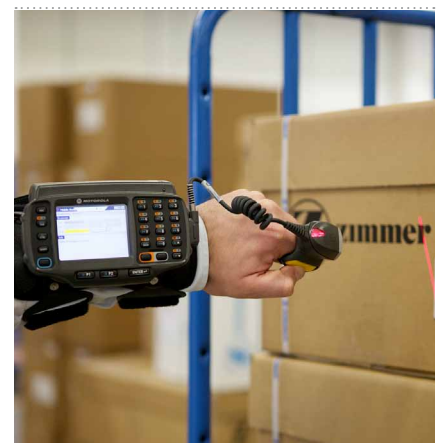
"Overall, we find that our entire operations – from the packing station to consolidation to goods issue – is more relaxed but also quicker," notes Andreas Berger, who headed the project team that implemented the software. His colleague Hanauer confirms this: "We can work more fluidly because ASSIST4 gives us step-by-step instructions and nothing can be overlooked."

The delivery notes are transmitted from the order entry system simultaneously to both the WMS and the ASSIST4 logistics suite. The transport team now receives the shipping notification much earlier and can make any necessary changes. Transport specialist

Melanie Hanauer explains the benefit: "Once in a while, Customer Service calls at 2 p.m. and reclassifies a non-time-critical shipment as urgent. Before, I used to have to wait until everything had been picked. Now, I can immediately call up the consignment in ASSIST4 and assign an express carrier. The package gets the right label at the packing station, is routed properly and ends up on the right cart."

Validated system

Zimmer, as an American medical technology company, is subject to U.S. FDA regulations and follows good manufacturing practice (GMP) guidelines. This includes validating the shipping software. This is carried out in three phases. "Installation qualification" means demonstrating that the software was configured according to the installation instructions. "Operational qualification" was carried out in August, one month before the productive launch. This involves checking whether the processes work as described in the functional specification. "The 'performance qualification' involves looking at the processes in their overall context and, for example, tracking a consignment through the entire system," explains Berger. This occurred as planned at the end of November 2010, two months after the productive launch.



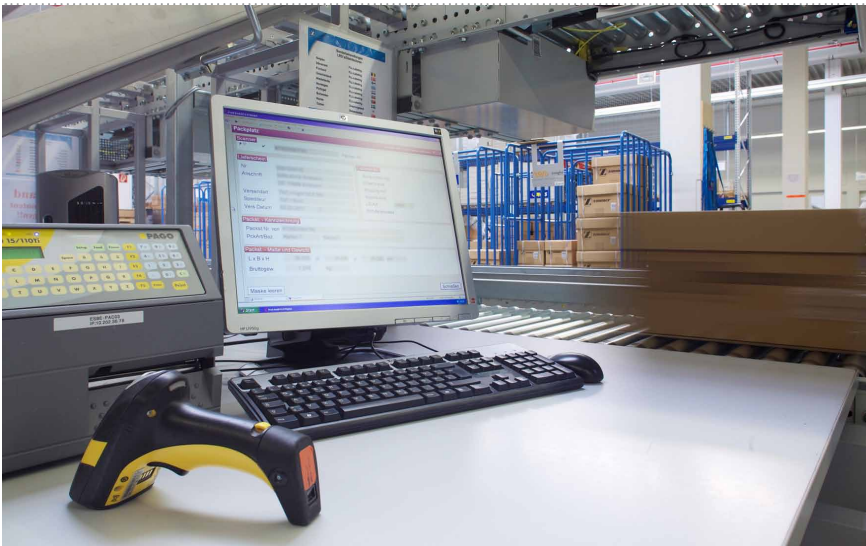
The mobile loading control at goods issue makes processes reliable.

Frank Heyne, who headed the project from AEB's end: "Despite the narrow time frame, we did a lot of advance testing before the official tests took place. That way we were sure we would pass the validation."

Tracking and tracing. Internally and externally.

Zimmer International Logistics uses the AEB logistics suite primarily to control the opera-

The milestones defined by the carriers are also automatically transmitted to ASSIST4 Monitoring & Alerting. The PoD (proof of delivery) status is also written back to the SAP system when the delivery is complete. This way, Customer Service can see for itself whether the delivery was successful and has that information available if the hospitals inquire. "If the package was not delivered on time, ASSIST4 helps us quickly track the last status registered for the package by the carrier," adds Andreas Berger.



Zimmer also uses the visibility and online platform ASSIST4 Monitoring & Alerting to track consignments through the distribution center until they are sent out.

tional shipping and export processes and make them more efficient and reliable. Zimmer also uses the online platform ASSIST4 Monitoring & Alerting, which lets you track consignments through the distribution center until they are sent out. The system maps certain stations as events: package is at the packing station, on the cart, at goods issue, etc.

"The mobile loading control feature has been added recently to make our processes even more reliable," says transport manager Nadin Stauffer. Employees use handheld scanners running AEB software. They have been in use since March 2010 and show employees whether everything was loaded.

Currently, no analyses are run to check the on-time performance of the individual carriers. But there are plans to do so, Baumer confirms. "Then we will also be able to see how well the carriers do in keeping their deadlines," adds Berger. "The prices for express deliveries vary according to the type of delivery. Such analyses will tell us if a shipment arrives considerably later than the promised time of 9 a.m., for example."

About Zimmer

Headquartered in Warsaw, Indiana, Zimmer is an orthopedic company active worldwide in the research, development, production and distribution of implants for reconstructive and emergency surgery. Zimmer has offices in over 25 countries and sells its products in more than 100 countries. Zimmer generated revenues of some \$4.2 billion in 2010 and is supported in its activities by over 8,000 employees worldwide.

About AEB

AEB has been a successful market player for over 30 years. Today, AEB is a global enterprise with over 5,000 customers in Europe, Asia and North America. The ASSIST4 logistics and global trade suite supports all supply chain process steps: goods receipt, picking and packing, transport and customs, freight cost management, and monitoring and controlling transport all the way to the end customer.

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