Output Management for Production and Shipping

Print-on-Demand Operating Instructions and Type Plates with SAP

KSB AG is a renowned manufacturer of pumps and valves with over 16,000 employees worldwide. The company is based in Frankenthal, Germany, and has an annual sales profits of € 2.3 billion.

The Situation

Approximately 300 pumps are produced and readied for shipping daily from KSB's Frankenthal plant. The production orders, which are released and printed through the SAP system, also contain documents from SAP DVS (declarations of conformity and operating instructions for each pump).

Every pump must be accompanied by operating instructions as it's readied for shipment. The operating instructions were previously kept on hand as stock goods.

The disadvantage to this is that many different versions of the instructions had to be kept on hand (per product and per destination language). If a pump or its instructions had to be changed, the old versions often had to be thrown out. If instructions were not available in the language needed, these had to be delivered in addition, which proved costly.

Furthermore, all pumps need a type plate which holds, among other data, the serial number and specifications. Each type plate is unique to its pump.

In order to alleviate the disadvantages of the old system of keeping operating instructions in stock, SEAL Systems helped to introduce a print-on-demand procedure for operating instructions and declarations of conformity.

A secure, automated process was sought for the product-specific creation of type plates.

KSB pump with type label

Finally KSB demanded secure Print processes for production and shipping that remain stable even if the network, SAP or output management server fails.

The Solution

An ideal solutions architecture was conceived from a series of SEAL Systems standard modules, in close cooperation with KSB.

The operating instructions are managed centrally in SAP DVS as PDFs.

With the release of an SAP production order the necessary production papers (move tickets) including DMS documents (operating instructions, declaration of conformity) are first automatically gathered in the background and pooled in a print file over SEAL Systems collection procedures. SEAL Systems Output Management System also places a QR bar code onto the production papers. It contains all data for that pump which shall be found later on the type plate.

The spooling data is subsequently cached on a PC during production.

Final assembly steps of a KSB pump

If Assembly reports the production of a pump, Shipping then has approximately one hour until

KSB pump shipping preparations

that pump is run through painting and arrives to be prepared for shipping.

The notification from Assembly automatically releases a new printing of documents in SAP through SEAL Systems. This ensures that the materials are bound over output management (duplex, perforated, stapled) with a high performance printer, paired exactly to the right product and in the right order as to which the pumps arrive from the paint shop, and directed to Shipping.

The back-up print data is automatically deleted after printing. If problems arise in output management or network during printing in SAP, the back-up file can be used for a local printing, so that production can continue uninterrupted.

The QR code on the production paper is then read by the scoring/embossing machine, so that type plates can be created for the pumps without manual input.

In Summary: What was Achieved?

- Operating instructions, printed on demand: the right product instructions swiftly, efficiently and without having to maintain them as stock goods.

- • Product specific creation of type plates: per bar code scan in production order

- • Failure safety in production printing: over continental boundaries even with SAP, output management or network failure