



XRHCount Automatic SMD-Counting



95% reduced counting overhead

No component database necessary

Integration to warehouse system

Less than 10 seconds per reel

Industry 4.0 and traceability support

XRHCount – the booster for modern pick and place applications

Today, mass-market electronics are manufactured almost exclusively on high-performance assembly machines. Time is literally money. Therefore, two aspects are of particular importance: maximum throughput and minimum changeover time. When it comes to the necessity of counting components before or after the assembly progress most manufacturers are still using the old-fashioned approach of manual counting devices. VisiConsult, as a specialist for X-ray systems and automation, developed the XRHCount in order to speed up this time consuming process.

The counting results are directly transferred to MES or ERP systems. Common solutions, like FUJI Trax, Nexim, Cogiscan, SAP and many more are already pre-implemented, while custom systems can be easily connected through an open database interface. This leads to a further process safety and efficiency increase. The XRHCount is Industry 4.0 ready and can be integrated to traceability systems. That allows to monitor critical KPI's for quality management purposes.

Why is it necessary to count?

In times of decreasing margins manufacturers have to streamline their production. This includes the avoidance of inventory overhead and a reliable just-in time order strategy. An uncertainty in the component stock results in safety overheads up to 30%. Obvious consequences are a lot of bound capital, wasted material and loss of precious stock space. With accurate inventory knowledge it is possible to do an exact feeder pre-planning and less production-line stops. Every time a reel is used the uncertainty increases if no counting is performed.

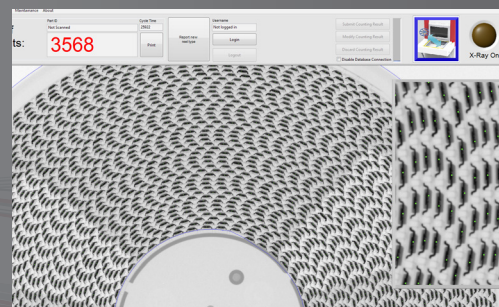


Less inventory overhead and improved order forecast

Reduces production stops resulting in higher efficiency

Live monitoring makes annual stock taking obsolete

Higher reel utilization due to exact feeder planning



Simplicity is the key

A huge advantage of the XRHCount is the simple operation principle. The operator just has to place a reel in the drawer and press one button. The result will be shown immediately. A sophisticated validation scheme delivers a warning in the unlikely case of an uncountable reel. These reels can either be counted manually or submitted to the Counting Cloud. Therefore, this system does not need any regular engineer support and is maintenance free. Operators can be trained in a few minutes due to the simplicity.

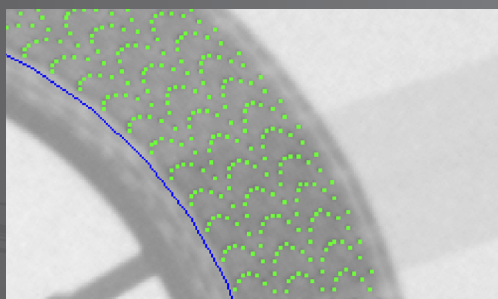
The system has an average cycle time of 10 seconds including handling compared to several minutes with manual counters. Noteworthy is also that the counting time does not scale with the number of components – 50.000 components just take slightly longer than 5.000. VisiConsult developed the first automated component estimation system based on an Artificial Intelligence (AI). This makes a prior type selection and a maintained type database obsolete. Even on new types the system will just detect the similarity and automatically use the best solution. In case of a completely new type a warning is shown and the reel can be submitted to the Counting Cloud. With every new type the system efficiency increases.

Industry 4.0: The Counting Cloud

To maintain flexibility and increase utilization VisiConsult developed the online Counting Cloud. Therefore, new component types don't have to be trained locally by engineers. Instead the new reels are directly submitted to our development team. Every system receives an automatic update on a regular basis. The extensive type database is continuously growing through a huge installed base of units worldwide. This leads to a constant improvement of the internal artificial intelligence and accuracy. This service also delivers new software updates and is completely free of charge.

Basic principles - compact footprint

The XRHCount is capable to process reels up to a diameter of 400mm and a height of 100mm. All common component types from small 01005 up to big connectors can be counted with an accuracy over 99%. Even sensitive components in antistatic or moisture bags can be counted with high accuracy. The cabinet itself has a small footprint of 1.25m x 0.85m and a height of 2.2m. To fulfill the demanding German safety standards, the system is certified by the German TÜV and has a CE certification. Barcode scanners, label printers and local networks can be easily connected.



And many more...

The XRHCount revolutionizes the efficiency of SMD-Counting through X-ray technology



XRHCount - technical specification

Energy	50 kV
Electrical connection	230 V, 50 Hz, 16 A
System size (L x W x H)	1250 x 850 x 2200 mm
System weight	780 kg
Cycle time	< 10 seconds
Max. reel diameter	400 mm
Max. reel height	100 mm
Mean Accuracy	99,9 %



- Fast Plug and Play setup in less than an hour
- Scan reels in moisture or ESD packaging
- Coverage of small component types like 01005
- Compact footprint and easy handling
- Integration of scanners and label printers
- Open warehouse-system interface
- Ergonomic touch-panel operation
- Short Return of Investment (ROI)
- Global online component database
- Designed and produced in Germany
- Trained first-line service worldwide
- Many successful installations globally
- Industry 4.0 solution for lean production
- Replaces old fashioned manual counters



VisiConsult is a family owned company located in Northern Germany and is a specialist for customized and standard X-ray systems. All our products are developed and produced locally and delivered as turn-key solutions. This leads to cutting edge performance and a high flexibility. Our goal is to solve our customers' problems with tailored systems and guarantee a premium post-sales service.

More than 25 years of expertise in Security and classic Non Destructive Testing (NDT) markets like aerospace, automotive and many more lead to an unmatched experience in X-ray technology and result in a superior global service network.