StaRRsed Inversa 24M

StaRRsed Inversa 24M, the small footprint Westergren ESR solution. Manually loading up to 24 samples and performing the ESR fully unattended. Only two reagents needed, for diluting and cleaning, located inside the instrument. Built-in chip card for easy pay per test use, a built-in printer and simple automated cleaning procedures make this instrument the appropriate instrument for small labs. Suitable for labs doing up to 100 ESR-samples per day.

StaRRsed Compact

The StaRRsed Compact ESR (Erythrocyte Sedimentation Rate) analyzer produces a true Westergren result and conforms to the recommendations of the International Committee of Standardization in Haematology (ICSH). Fast turn around, immediate results after half or one hour after start of measurement, automated waste control, accepting both open and closed sample tubes, accepts EDTA blood samples and no disposables. Built in barcode reader. Suitable for labs doing about 100-200 samples per day.

StaRRsed III Sampler

The StaRRsed III is a fully automated ESR (Erythrocyte Sedimentation Rate) analyzer that produces a true Westergren result and conforms to the recommendations of the International Committee of Standardization in Haematology (ICSH). Built in barcode reader, full walk away operation for 30 samples, only 1.6 ml sample volume, to be connected to lab computer. Suitable for labs doing > 150 ESR’s a day.

StaRRsed Auto Compact

Based on the established StaRRsed Compact, the addition of the StaRRsed Rack now provides what the busy Haematology Lab has been demanding, the StaRRsed AutoCompact. Using existing blood cell counter racks, all makes accommodated, the operator time is reduced to nearly zero. Results are available in either one-hour or half-hour depending on mode of operation. The dedicated PC-based application program, operated through a touch screen monitor has built-in QA features and archiving capabilities. Suitable for labs doing about 150 – 300 samples a day.

StaRRsed IntelliRiner V8

IntelliRiner makes continuous ESR analyses available, a stand-alone device or as an integrated device within a complete test line. Easy loading of the samples from the racks into the instrument. Fully automated barcode reading for an optimum efficiency. Fully automated preparation of samples before aspiration. The dedicated PC-based application program, operated through a touch screen monitor has built-in QA features and archiving capabilities. Suitable for labs doing > 300 samples a day.
ESR (Erythrocyte Sedimentation Rate) is a common test used worldwide in hematology for almost a century. Mechatronics is the manufacturer of StaRRsed ESR analyzers for more than 25 years and all StaRRsed ESR analyzers work with the globally accepted Westergren reference method. Having built more than 1200 StaRRsed ESR analyzers of different types, operating around the world to large medium sized laboratories, Mechatronics has now developed a smaller model, the StaRRsed Inversa 24M, with a smaller footprint, for labs doing less than 100 ESR-samples per day. Inversa automatically performs the ESR analyses on whole blood, the same EDTA (ethylenediaminetetraacetic acid) blood samples already collected for the full blood count (there is usually enough left over). However, pre-citrated blood collection tubes can also be run by a dedicated “citrate” version of the instrument. Up to 24 standard blood collection tubes (EDTA) can be placed one by one on the instrument which will then perform an ESR measurement on each one fully unattended. A built-in barcode reader gives a positive identification of each sample. Inversa has an automatic and accurate diluter (1.2%) for adding sodium citrate solution to the blood sample. The ESR is measured after one hour, or half an hour in the half hour mode (where the half hour result gets extrapolated to one hour), and the pipettes are automatically washed and can be used over and over again. Results are displayed on a built in thermal printer and at the same time sent to a Lab Computer. Inversa contains a built in chip card reader which permits a cost per test installation or lease as alternatives to outright purchase.

### Westerners method

All StaRRsed’s, including the StaRRsed Inversa 24M perform the ESR test using the Westergren reference method, as originally laid down by the International Committee of Standardization in Hematology (ICSH) and now adopted globally as the standard method for ESRs. 

A blood collection tube is placed in the universal tube entry position and the start button activates the aspiration system. A double needle pierces the cap and blood is aspirated from the tube. The aspirated blood is diluted with citrate solution in the ratio 4:1 and the diluted blood sample is drawn up into one of 24 Westergren pipettes inside the instrument. After aspirating all blood samples (up to 24), Inversa takes over, leaving you and your operators available for other tasks in the laboratory. After 30 minutes or 60 minutes have elapsed, the instrument will, measure the sedimentation for each pipette, print the result and report it to the LIMS (Laboratory Information Management System). The Westergren pipette is then automatically cleaned and the pipette is ready for re-use again.

Inversa is a true ‘walk-away’ instrument as the complete process after sample loading is run autonomously and unattended.

### Sample loading and processing

Because Inversa has a built-in diluter, it will accept EDTA blood, already collected for the Full Blood Count to be used, thereby eliminating the use of expensive pre-citrated blood sample tubes. This cuts down running costs significantly. Within a very short time savings are sufficient to recoup the capital outlay. In addition, EDTA blood is very stable and may be used for up to 24 hours after collection rather than the recommended four hours for citrated blood samples.

The StaRRsed Inversa 24M is manually loaded with up to 24 samples at a time. It takes approx 12 minutes to load the instrument. Time span before getting the first result depends on the measuring time the instrument is set to: approx. 31 minutes in the half hour mode or 61 minutes in the one hour mode.

### No additional disposables

A significant reduction in consumable costs and incineration expenses is achieved by the elimination of a citrated blood collection tube, usually required by many other ESR procedures. Furthermore, as the high accuracy glass Westergren tubes are reusable again and after cleaning there are no additional costs for new pipettes. In fact, as no disposable plastics of any sort are used, Inversa also contributes to a cleaner environment all round, a truly environmentally sound analyzer.

### Chip card facility

The Inversa has a built in chip card reader, enabling different ways of using the instrument. Inversa can either be purchased outright, or leased over a period of time, or alternatively, installed on cost per test basis, by purchasing a chip card, pre-programmed with a specific number of tests, usually e.g. 5,000 or 10,000 at a time. The cost of the card will depend on the number of tests required and what else is included: e.g. service, reagents, and spares. This chip card can be obtained from your local distributor.