

StaRRsed Compact

The StaRRsed Compact ESR (Erythrocyte Sedimentation Rate) analyzer produces a true Westergren result and conforms to the recommendations of the International Council for Standardization in Haematology (ICSH). Fast turnaround, immediate results after half or one hour after start of measurement, automated waste control, accepting both open and closed sample tubes, accepting EDTA blood samples and no disposables. Built in barcode reader. Suitable for labs doing > 60 samples per day.



StaRRsed III

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 Council for 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 Auto Compact. Using existing blood cell counter racks, the operator time is reduced to nearly zero. Results are available in either one-hour or half-hour mode. The StaRRsed Auto Compact takes ESR sampling to new heights. Suitable for labs doing > 150 samples per day.



InterRliner

InterRliner makes continuous production of the ESR analyses available, as stand-alone or as an integrated device within a complete test line. Easy loading of the samples from the racks into the machine. Fully automatic barcode reading for an optimum cooperation with the administration and report software. Fully automated preparation of samples before aspiration. Suitable for labs doing > 300 ESR's a day



VD 05-010

STAR^{RR}SED Compact

Bench top automated ESR analyzer



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StaRRsed Compact

StaRRsed is the automated solution for Erythrocyte Sedimentation Rate (ESR) analysis, StaRRsed Compact the bench top version to accommodate your laboratory. Having built numerous StaRRsed's of different types operational around the world, Mechatronics now succeeded in building an analyzer that is fully applying to the true Westergren method¹ of determination the sedimentation rate of whole blood. Manually loading blood samples up to 84 in a row is making the Compact a versatile and easy to use analyzer. After aspiration 1.3 ml from standard blood sample tubes the Compact performs dedicated ESR measurements (Erythrocyte Sedimentation Rate) fully unattended, minimizing the operator's time to virtually zero. A built-in barcode reader is applied, guaranteeing a positive identification of the sample. Compact features an automatic and accurate dilution of the blood sample with sodium citrate (4+1 dilution). Results are presented either in one hour or half hour mode². A capacity of approx. 135 samples in 50 minutes (half hour mode) or 75 samples in 80 minutes (one hour mode) brings ESR sampling to new heights.



Westergren method

All StaRRsed's, as the Compact perform ESR analyses fully applying to the standard Westergren method¹, as laid down by the International Committee of Standardization in Haematology. A temperature correction will take care of the influence of changing ambient temperature on the accuracy of the measurement. That means that results can reliably be interpreted by the physician ordering the test. Each Compact is equipped with 84 high precision bore glass Westergren pipettes, which are re-used time after time, test after test. StaRRsed Compact corrects each analysis to 18.3C, a feature that guarantees that your results comply with the standard Westergren method⁴.

Performance

After introducing a blood sample to the Compact the first results are sent to the laboratory Information and Management System (LIMS) and/or to a connected printer in barely 30 minutes using the half hour mode. Continuous throughput is approx. 135 samples per 50 minutes when set in half hour mode, an astounding performance, day after day. In one hour mode throughput will be 75 samples in 80 minutes time, provided constant sample loading is established.

EDTA blood samples vs. pre-citrated

Compact, like all StaRRsed's, have an accurate citrate diluter system built into the analyzer, which enables your FBC to use EDTA anti coagulated blood samples as for full blood count, so no expensive pre-citrated blood sample tubes are needed. It cuts down your running costs significantly. Within 2 years your savings are sufficient to recoup the capital outlay. It also has the benefit that EDTA blood is very stable and may be used for up to 24 hours after vein puncture rather than the recommended four hours³ for citrated blood. This provides your laboratory with even more logistical flexibility. Typical accuracy of the citrate diluter is + 2%.

Hazy samples

Even hazy samples are detected by Compact, using a sophisticated optical reader, combined with built-in algorithms, capable of an accurate determination of the relevant blood cell interface in most cases. That means that even hazy samples are reported to the client.



No additional disposables

The Compact does not use disposable citrated tubes; instead it works directly with EDTA (ethylenediaminetetraacetic acid) blood samples, already collected for the full blood count. A drastic reduction in consumable costs and incineration expenses is herewith established. The high accuracy Westergren¹ tubes are re-used again and again. Compact takes care of cleaning and drying the pipettes guaranteeing a minimum of disposals and no additional costs for new pipettes after specimen have been analyzed. Compact also contributes to a cleaner environment as no disposable plastics of any sort are used, a truly environmentally sound analyzer.

Negligible costs

The Compact as with all StaRRsed's, uses a minimal amount of low cost reagents and no disposable tubes, therefore cutting down the operational costs substantially. You may re-use the Westergren pipettes again and again as they are thoroughly cleaned after use by the Compact itself without necessary interference of the operator.

Maintenance

All parts are easily accessible. Weekly cleaning is mostly automated and takes about one hour. Monthly maintenance takes 30 minutes. Daily automated pipette rinsing is a preventive measure against any bacterial grow and is highly recommended. The Compact system performs this task fully unattended after a two-button start command.

Overall dimensions

Dimensions wxdxh	1.100 x 800 x 660 mm
Weight	70 kg
Power requirement	115/230 V; 50/60 Hz; 300 VA
Noise level	<55 dB

FDA Regulation Number: 864.58005.
CE-marking established.

References

1. Stuart, J. International Committee for Standardization in Haematology. Recommendations for measurements of erythrocyte sedimentation rate. J Clin Pathol 1993;46:198-203
2. Rogers, R. The development of 30-minute ESR's on the StaRRsed ESR analyzer. Medical Laboratory World. April 1994
3. Melville ID. The use of a sequestrene-citrate mixture in the estimation of the blood sedimentation rate. J Clin Pathol 1959;12:258-261
4. The effect of room temperature on erythrocyte sedimentation rate and its correction. Manley,R.W. J.Clin Pathol. 1957; 10: 354-356
5. FDA Center for Devices and Radiological Health. Federal Registers December 7, 1994

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