Positioning to Win: miniiSED vs. Diesse/Streck Mini-Cube

Profile of a Mini-Cube user

- **Location**
  - Primary: hospitals, rheumatology clinics, and other stand-alone labs
  - Secondary: CLIA Moderately Complex physician office labs (POLs)

- **Volume**
  - Approximate monthly ESR sample volume of 1-20 samples a day, 150-600 samples a month.
  - This volume is manageable for the user to insert tubes one at a time on the miniiSED and improve turnaround time with only 15 seconds to result vs. the Mini-Cube at 20 minutes to result.

- **The ideal Mini-Cube customer profile to switch to the miniiSED**
  - Labs that want a little more automation, lower sample volume, less hands-on time, and faster turnaround time to manage up to ~20 samples/day. If they feel that Westergren has limitations that impact result accuracy, they too would be good candidates to switch.
  - If the user is in the US, they acquired their analyzer from Streck vs. Diesse. Many are recent placements due to the discontinuation of the Streck Auto Plus. Streck has been working to place the Mini-Cube and protect their base but we are also looking for these opportunities and have converted many users to miniiSED. These are loyal customers to the Streck brand and they do not “shop around” when switching analyzers, so prospect your territory thoroughly and quickly to ensure that you identify these potential opportunities.

- **Workflow**
  - **Test prioritization-**Since no blood is withdrawn for the testing process, a pierceable cap is not necessary, and if other tests are ordered on the same tube, they may be run before or after the ESR, depending on the workflow in the lab. In general, Hematology tests (CBC, DIFF) are prioritized before any other test to ensure the integrity of the sample.
  - **Sample collection-**Mini-Cube utilizes standard 13X75mm EDTA sample tubes and BD MAP or BD Microtainer tubes, with or without a pierceable cap, that are directly inserted into an open slot on the analyzer. The cap type (pierceable or non-pierceable) would be dictated by the lab’s Hematology system based on its sampling capability.
  - **Sample storage and mixing-**Testing must be performed within 4 hours of collection, with the sample at room temperature (18-25°C), or within 24 hours if stored at 2-8°C. If refrigerated, samples must be brought to room temperature for 15 minutes and mixed well. For all samples, gentle and complete inversion of the tube end-over-end 10-12 times immediately before starting the test is recommended.
  - **Sample volume-**For the 13X75 tubes, 2-4mL of sample is required; for the micro-collection devices, 500µL (0.5mL) of sample is required. The patient ID/barcode label(s) must be positioned on the tubes to allow a reading window for the ESR to be read.

Comparison of miniiSED and Mini-Cube

	miniiSED 	Mini-Cube 	WINNING ANALYZER
Testing methodology	Photometric Rheology RBC aggregation	Optical infrared RBC sedimentation	miniiSED
Minimum Volume	Up to 500 µL (varies by tube type)	13X75 tubes: 2mL BD MAP or BD Microtainer: 500 µL (0.5mL)	miniiSED
Testing Volume	100 µL	0mL-no sample is used for testing	Mini-Cube
Time to first result / Analysis time	15 seconds Note: to ensure accurate results, samples must be mixed for at least 3 minutes on a mechanical rocker prior to testing	20 minutes after 10-12 inversions	miniiSED
Random access-always ready to accept samples	NO- only one sample position	Yes	Mini-Cube
Loading samples	One at a time, up to 180/hour	One at a time up to 4 samples/20 minutes	SAME
# Positions	1	4	Mini-Cube
Throughput Max tests/hour	One at a time, up to 180/hour	12 Samples/hour	miniiSED
Mixing on Board	No 3 minutes (minimum) mixing manually or on a mechanical rocker	No Manual mixing, 10-12 inversions	SAME
Size-foot print (in / cm)	9.5 x 7.1 x 10.4 in 24.1 x 18.0 x 26.4 cm	5.3 x 4.9 x 7.5 in 13.5 x 12.5 x 19.1 cm	Mini-Cube
Automated Washing	Yes automatic wash after 15 min or initiated by user	NA- No washing is required since blood is not drawn into analyzer	Mini-Cube
Barcode Reader	Yes-Internal	Yes-optional external accessory	miniiSED
Printer	Optional-External	Optional-External (Bluetooth)	Mini-Cube
Interface Capability	Yes-uni-directional	Yes-bi-directional	SAME
Quality Control	Human-based, bi-level 60-day open vial stability 18-month shelf life RT storage Online QC program	Human-based, bi-level 7-day open vial stability at RT 95 days refrigerated	miniiSED
Sample Tube Requirements	13X75 EDTA/ pierceable cap BD MAP, BD Vacutainer, Greiner miniCollect, Sarstedt S-Monovette	13X75 EDTA with / without pierceable cap, BD MAP, BD Microtainer	miniiSED
Sample Stability	4 hours at RT 24 hours at 2-8°C	4 hours at RT 24 hours at 2-8°C	SAME
Temperature Control	YES	YES applies temperature correction to results if enabled	SAME

Summary of comparison

Key reasons to choose the miniiSED:

- **Sample requirements**

References are listed at the end of the Guide

- Mini-Cube requires at least 2mL of sample in 13X75 tubes and 0.5mL for BD MAP and BD Microtainer tubes, which could lead to QNS and re-draw and is not ideal for pediatric or low volume samples. Hematology samples are usually prioritized, to ensure sample integrity for the CBC and DIFF, and some sample would be taken from the tubes prior to running sed rate which could also reduce the amount of available sample for accurate sed rate results.
- miniiSED minimum sample required is up to 500 µL, which includes only 100µL for testing + dead volume (varies by tube type-refer to the ALCOR Tube Compatibility Chart) in the currently validated sample tubes, making it ideal for low volume and pediatric samples.

- **Tube requirements**
  - Mini-Cube requires barcode labels are positioned straight with an open window between the label edges for the analyzer to scan and read the sedimentation. Only one secondary label other than the manufacturers label is allowed.
  - miniiSED provides flexibility, within some limits, regarding placement of the barcode label because it samples directly from the primary EDTA tube and does not require an open window on the tube. This increases workflow productivity by reducing or eliminating time to re-position incorrectly positioned barcode labels.

- **Internal barcode reader**
  - Mini-Cube has an optional external barcode reader, which increases the potential for human error due to sample swap during scanning, whereby an unscanned sample can be loaded instead of the one that was scanned. This leads to loss of sample traceability and patient identification connected to the wrong sample result.
  - miniiSED has an internal barcode reader for positive patient identification and sample traceability, ensuring that the sample being tested is connected to the correct patient information. This is important to prevent reporting wrong results and potentially causing unnecessary medical care.

- **Methodology**
  - Mini-Cube uses infrared technology to scan a window between the edges of the label on the outside of the tube. This is a gravity-based methodology measuring the sedimentation of aggregated red blood cells and has the same limitations as the Westergren including temperature, HCT, MCV, mixing, and vibrations. These variables impact the accuracy of the sed rate results. Mini-Cube does have the option to add the HCT percentage, if available, to correct the sed rate result, and the internal temperature control can be turned on to correct for variations. Results negatively impacted by HCT, MCV, temperature, vibrations or poor mixing may not be realized by the user and would be reported to the physician who could potentially make clinical decisions using flawed results.
  - miniiSED uses photometric rheology to measure the intensity of red blood cell aggregation, which occurs in the first phase of the sedimentation process. The miniiSED is not impacted by environmental and sample variables such as HCT, MCV, temperature and vibrations. To ensure accurate results patient samples must be well mixed prior to testing. If automated mixing is not available (or enabled) on the analyzer, samples must be mixed manually or by mechanical rocker for a minimum of three (3) minutes before testing. Testing should occur immediately after mixing to ensure accuracy of the results.

- **Time to result**
  - Mini-Cube has an analysis time of **20 minutes** after manual mixing of 10-12 end-to-end inversions.
  - miniiSED time to first result is **15 seconds** after mixing for a minimum of 3 minutes manually or on a mechanical rocker.

Common objections to switching:

- We are happy with our current analyzer; if it's not broken, why fix it?
  - "Happy" is relative. If they have not used anything else, they may not realize that there is a better way. Ask about sample volume requirements, tube requirements, throughput, and time to result, and sample traceability, plus the limitations of the sedimentation methodology in general, as described below in the SPIN questions.
- We are swamped right now and switching analyzers is not a priority.
  - (US only) This is a great opportunity to highlight our ALCOR iLEARN platform. iLEARN is a learning platform where the end user has access to OnDemand operational training to be up and running at their own pace. Once they have completed training, they can begin correlation and we crunch the numbers for them.
  - In general, if we can make it simple for the customer to switch through installation, training, and correlation support, they will see big benefits once implementation is completed.
- Mini-Cube is less expensive.
  - Do a cost analysis to understand their costs vs. the miniiSED. Streck/Diesse also sell test credits, which decrement each time a result is generated (whether patient samples or controls), and they sell controls. Note that they do not need wash or waste for their analyzers, so this could be a pitfall depending on their current pricing.
  - Use the SPIN questions below to establish value in the mind of the customer around their pain points of sample volume, sample traceability, hands-on time, turnaround time, and methodology limitations that can impact results.
- Mini-Cube does not use any sample for testing and there is no maintenance required other than just wiping it down with 70% alcohol.
  - Both points are true. The approach here should be based on their daily testing volume and workflow needs. If they get more than 4 samples in batches, have a high percentage of low volume samples, and/or have requests for faster turnaround time-the miniiSED would be a better option.
  - Focus on workflow and methodology limitations to increase the value of automated technology and justify any cost increase. In some markets, tech time/hands-on time and potential for error are important to discuss and look for ways to improve. Automated and other minimal maintenance on the miniiSED may not be an issue if the lab can improve the accuracy of their results, TAT and user time.

SPIN Questions to Identify and Address Pain Points:

Pain Point #1: Samples require minimum of 2-4 mL sample volume (for 13x75mm tubes) and 0.5mL sample volume (for pediatric/micro-collection tubes).

Situation questions:

1) Do you run into many QNS issues with your Mini-Cube?
2) Do you get many pediatric tubes? What type of pediatric tubes do you use? What is the average volume, are they usually filled to capacity? Can they be placed directly on the Mini-Cube for testing?
3) Are your samples, including pediatric, first run on a CBC analyzer prior to running sed rate?

If tests are run prior to sed rate, then the sample volume will be lower. This can be an issue for pediatric samples since they already have smaller volumes prior to testing.

Problem questions:

1) What do you do with pediatric or low volume samples? Are you able to run them on your Mini-Cube?
2) How do you handle QNS samples?

Implication questions:

1) What happens when you cannot run samples due to the sample volume not meeting the minimum 2mL or 0.5mL requirement? Do you request a re-draw?

Labs want to minimize sample re-draws as it upsets the patient, especially pediatric samples.

2) Do you have a backup plan for pediatric samples and samples below the 2 mL sample requirement?

State that the miniiSED can run on BD MAP tubes and Greiner tubes with a minimum sample required up to 500 µL, which includes only 100µL for testing + dead volume. (varies by tube type-refer to the ALCOR Tube Compatibility Chart)

Needs payoff:

1) Would it improve your sample utilization and minimize QNS and redraws to have an analyzer that requires a minimum sample required up to 500 µL, which includes only 100µL for testing + dead volume? (depending on tube type-refer to ALCOR Tube Compatibility Chart)

Pain Point #2: Analyzer requires careful placement of the label and an open window on the tube for analysis.

Situation questions:

1) How often do you receive tubes with more than one label?
2) How often do you receive tubes where the label is overlapping and there is no window?
3) How often do you have to re-position labels prior to loading on the analyzer?
4) What is the average number of sample tubes that must be re-positioned daily?

Problem questions:

1) How long does it take to re-position a tube label? How much does it impact your workflow?

Depending on how many tube labels must be re-positioned prior to loading on the analyzer will impact the time taken away from analyzing samples and doing other high value tasks.

2) What different types of label issues have you encountered? (applied at an angle, sides overlapping leaving no window for reading, multiple labels applied on top of each other, torn or damaged, barcode not readable, others)

Implication questions:

1) What happens if there is more than one label on the tube? Do you have to remove a label? How do you know which label to remove? What if the label is damaged, can you create a new one? How much time does it take to correct a damaged or misplaced barcode label?

It is common to have multiple barcodes or patient labels on one tube since patient samples can come from a different facility (e.g., outpatient) or department that has their own specific barcode, in addition to the lab barcode.

Needs payoff:

1) Would it be helpful to have an analyzer that does not need an open window on the tube to analyze sed rate?
2) Would it be helpful to your workflow to not have to re-position tube labels prior to placing the samples on the analyzer?

Pain Point #3: Optional external barcode reader.

Situation questions:

1) How do you input patient information into your analyzer? (answers are that they manually add patient information or use the external barcode scanner)

Problem questions:

1) If manually inputting patient information: How much time does it take to manually type in patient name and ID? Is it possible to make a mistake when entering patient information manually on the analyzer?

2) If inputting via external barcode reader: What issues have you had with the external barcode reader? Does it ever give you reading errors, maybe due to the position or condition of the barcode? How do you ensure sample traceability and positive sample ID? How do you ensure that the sample result is tied to the correct patient information?

External barcode readers increase the risk of scanning one sample but loading a different one instead on the analyzer, usually due to user distraction from other things going on in the lab, interruptions by colleagues, phone ringing, etc.

Implication questions:

1) What happens if there is an error in the patient information manually entered on the Mini-Cube? Are you able to go back and fix it? Do you need to document the error? Can you still transmit the results electronically if the patient ID was entered incorrectly?
2) What happens if there is a distraction that leads to a sample swap while you are scanning and loading samples? If a swap like this happens and the results are reported on the wrong sample, how would you know? What would you do if you learned that this had happened?

Needs payoff:

1) Would it reduce potential for error and increase your productivity to have an analyzer that scans the barcode as it is being inserted into the analyzer, ensuring positive patient identification every time?

Pain Point #3: Time to result is 20 minutes.

Situation questions:

1) How many samples do you run per day / per month? How do they come into the lab-one at a time or in batches? Do you keep them at room temperature until you have a batch of 4 samples, or do you run them as soon as they arrive?
2) Do you get many STAT samples? How many per day?

Depending on how many STAT samples the lab receives can impact the turnaround time on priority samples if the sed rate takes 20 minutes to receive results. If the sample also has Hematology tests to be done on it, those will be done first before the sed rate can be started.

Problem questions:

1) How often do you have turnaround time issues with a sed rate analyzer that takes 20 minutes to result? If you are holding samples in batches, do you get calls asking for the results before you have started the run?
2) Are 4 sample positions enough to provide adequate throughput for your sample volume?

Depending on the lab's sample volume, if they are running 20 samples a day then having 4 positions and a throughput of only 12 samples an hour can potentially impact their turnaround time.

Implication questions:

1) What do you do if you receive a large batch of samples and have only 4 positions to start tests?
2) What happens when you receive a STAT sample? Are you able to easily prioritize the sample and get the result in a timely manner?

Needs payoff:

1) Why wait 20 minutes if you can have an answer in 15 seconds?
2) What if you never had to worry about turnaround time again and you could prioritize and report a STAT sed rate result in 15 seconds?

Quick Response Guides for Competitors

Instructions: After a conversation with the prospect you can follow up with a summary of competitive advantages of our analyzers. These key differences are targeted specifically to the competitor. It is best to leave the competitor name out of the communication (called "current system").

miniiSED vs. Mini-Cube

(copy and paste the following in your email)

Key differences vs. your current system and reasons to choose miniiSED for (Lab/Hospital Name) laboratory

- **Sample requirements:** requires only 100µL of sample directly from the primary EDTA tube, reducing risk of QNS and re-draw; ideal for pediatric or low volume samples.
- **Time to result:** quick TAT of 15 seconds.
- **Efficiency:** reduced or eliminated time to manage incorrectly positioned barcode labels increases workflow and productivity.
- **Traceability:** an internal barcode reader provides positive patient identification and sample traceability, ensuring that the sample being tested is connected to the correct patient ID.
- **Accuracy:** technology is not impacted by bubbles, environmental or sample variables such as HCT, MCV, temperature and vibrations, ensuring accurate patient results and reduced potential for errors.
- **Quality Control:** Seditrol® has 18-month shelf life and open vial stability of 60 days at room temperature, ensuring full use of the entire vial of material before it expires.