JSE @ Your Service 6

Circuit breakers, Price Bands, and Self –Match Prevention

25 June 2026

let's connect

MEET THE TEAM

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As Trading Operations, we are committed to making a meaningful impact in the financial markets by:

- Ensuring fairness, transparency and integrity across all markets
- Driving innovation and fostering growth through education and engagements

Our core responsibilities include:

- Managing day to day trading and market operations across all asset classes
- Overseeing new product releases from concept to production, including design, testing, delivery and handover for ongoing support
- Providing second level support to address client queries and issues
- **Client Service Centre (CSC)** serves as our **first-level support** and can be contacted on 011 520 7777 or customersupport@jse.co.za

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Objectives

- **Create a collaborative space** for all market participants.
  Bridge the gap between traders, their frontends and functionality

- **Educate the market** on standard JSE functionality
  Address trader pain-points and align on basic market operations.
  Enhance fairness and transparency across all members

- **Encourage co-creation,** approachability and stronger relationships
  Foster more frequent **face-to-face engagement** with each member

Vision for JSE @ Your Service

Empowering our clients education, collaboration, and tailored support to unlock the full potential of JSE's trading ecosystem.

Educate & Empower

- Build foundational understanding of trading functionality and operational workflows
- Simplify complex concepts, address common queries, and demystify trading processes
- **Intended Audience:** Head of trading desks, traders and immediate teams, new members across EQM, EDM,& FXM, members of the trading desks and back office teams

Monthly Virtual session (60 minutes)

- **Themed educational walkthroughs** of trading functionalities
- Discuss evolving market practises
- Create a consistent learning rhythm and foster collaboration
- **Resources shared**: After each session, clients receive:
  - Recording for reference
  - The Presentation deck (PDF Format)
  - Quick links to relevant documentation
  - Summary of key takeaways

Tailored in-person visits (On request)

- Deep-dive into **client specific needs and workflows**
- Strengthen relationships and provide hands-on support
- Open discussions, brainstorming , knowledge sharing and problem solving.
- Flexible to present in meeting rooms or join traders at their desks for minimal impact to operations.
- Discuss updates on projects, new functionality and enhancements.

Building Together

- **Client input matters** : We want to hear what topics matters most to you
- Post-session surveys to assess usefulness, relevance and impact
- Use feedback to shape future sessions, formats and content
- A shared roadmap for continuous improvement and innovation
- Potential for a year-end in-person session based on engagement.

Recap from Previous Session

JSE Market Structure

Organized across **Equities, Equity Derivatives**, and **Currency Derivatives**
Instruments grouped by **asset class, type**, and **sub-category**
Supports both **standard** and **customised instruments**

Instruments Landscape

Equities : Shares, ETFs, Warrants, Preference Shares etc.
Derivatives: Futures, Options, CFDs, Structured products
Pricing driven by **market activity vs underlying models**

Futures and Options Fundamentals

Futures: Binding, margin-based contracts for hedging
Options: Rights based, premium-driven instruments
Core building blocks for **derivatives trading strategies**

Strategy & Structured Instruments

Delta Options: Quoted on implied delta
Inverse Calendar Spreads: Trade across expiries
Structured Products(Can-Do): Custom baskets, Quanto, exotic options etc.

User –Created Instruments

User-created instruments: Created via trading system workflow
Includes **AnyDay futures, naked options, delta options**

Reference Data & Classification

Delivered via **JSE IDP** (csv format)
Includes **instrument attributes, sub-categories, eligibility flags**
Drives **validation, grouping and system processing**

The recordings and presentations from Sessions 1-5 can be accessed here, at the bottom of the page under "JSE @ Your Service Webinars"

2026 Monthly Training Plan

Month	Theme	Expected Outcomes
29 January 2026	The Daily Trading Lifecycle and JSE Trading model	Introduce the initiative, set expectations, and members gain understanding of the full day structure, including key sessions and how the JSE trading model supports price discovery and execution
26 February 2026	Type of Orders, Order Attributes & Order Management	Improve order handling accuracy, reduce rejections and optimize execution strategies using the correct order types and qualifiers
26 March 2026	Auction sessions, Matching Algorithm & Priority Rules	Understand auction logic, optimize participation and reduce execution risk, including FCO's
7 May 2026	Closing Price Methodology	Members understand how closing prices are calculated , the role of the closing auction, and how it impacts valuations and settlement
28 May 2026	Instruments, structured products and user created instruments	Members understand the instrument types available in all three markets and the creation of user created instruments, including bespoke structured products.
25 June 2026	**Circuit breakers, Price Bands & Self Match Prevention**	**Members understand safe trading practices and how circuit breakers and price bands protect market integrity active monitoring of volatility auctions, duration and manual intervention for market quality**
30 July 2026	Trade types: Onbook and Reported including Trade Cancellations; Strategy Trades	Members understand single and dual trade reporting, trade cancellation and modification, including next day cancellations
27 August 2026	Exchange Traded Products & Market making	Improved trading strategies and product utilization
30 September 2026	Market data Dissemination and Technical gateways, including SENS and Indices	Members understand the structure and flow of JSE market data, how to access it, and how to use it effectively in trading decisions.
29 October 2026	Corporate actions	Detailed workflow of corporate actions, how they are captured in the trading engine and information made available via market data gateways.
26 November 2026	Year –End Wrap up & vision for the following year including Market Trends & Insights	Share key market developments, trading volumes, and behavioral insights. Celebrate progress and member contribution, build excitement for the next phase of engagement

Price Bands vs Circuit Breakers

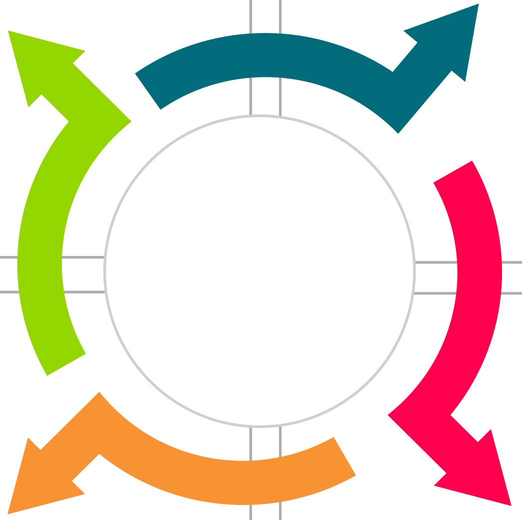
Both mechanisms protect the market –but in different ways

Price Band

- Predefined price range around a reference price
- Orders outside the range are rejected immediately
- Applied continuously during trading

Circuit Breakers

- Predefined % price movement threshold
- Triggered when the price breaches a predefined percentage threshold
- Breach triggers volatility auction



Price Band- Key Benefits

- Prevents erroneous or extreme orders
- Keeps trading within controlled range
- Supports orderly, continuous trading

Circuit Breakers: Key Benefits

- Slows down extreme market moves
- Allows time for price discovery
- Reduces panic–driven trading

Key differences: Price bands control order entry and circuit breakers control market behaviour during volatility

JSE Trading Safeguards| Circuit Breakers

A Circuit breaker prevents unnatural price movements in an instrument by triggering a Volatility Auction Call session. This provides traders with an opportunity to correct the order price, if necessary or adjust to market sentiment/news.

Circuit Breaker (CB) tolerance is defined as a percentage in relation to the Static Reference Price and / or Dynamic Reference Price of an instrument.

Two types of circuit breakers exists in the Trading System, the more restrictive of which, will always take precedence:

- Static Reference Price CB – Which refers to either the previous day's closing price or the last auction price
- Dynamic Reference Price CB –refers to last traded price

If the difference between the price of the next trade and the Static Reference Price or Dynamic Reference Price is equal or greater than that permitted by the Circuit Breaker tolerance defined for the relevant session, the instrument will automatically be moved into: A Volatility Auction Call session (For 5 minutes)

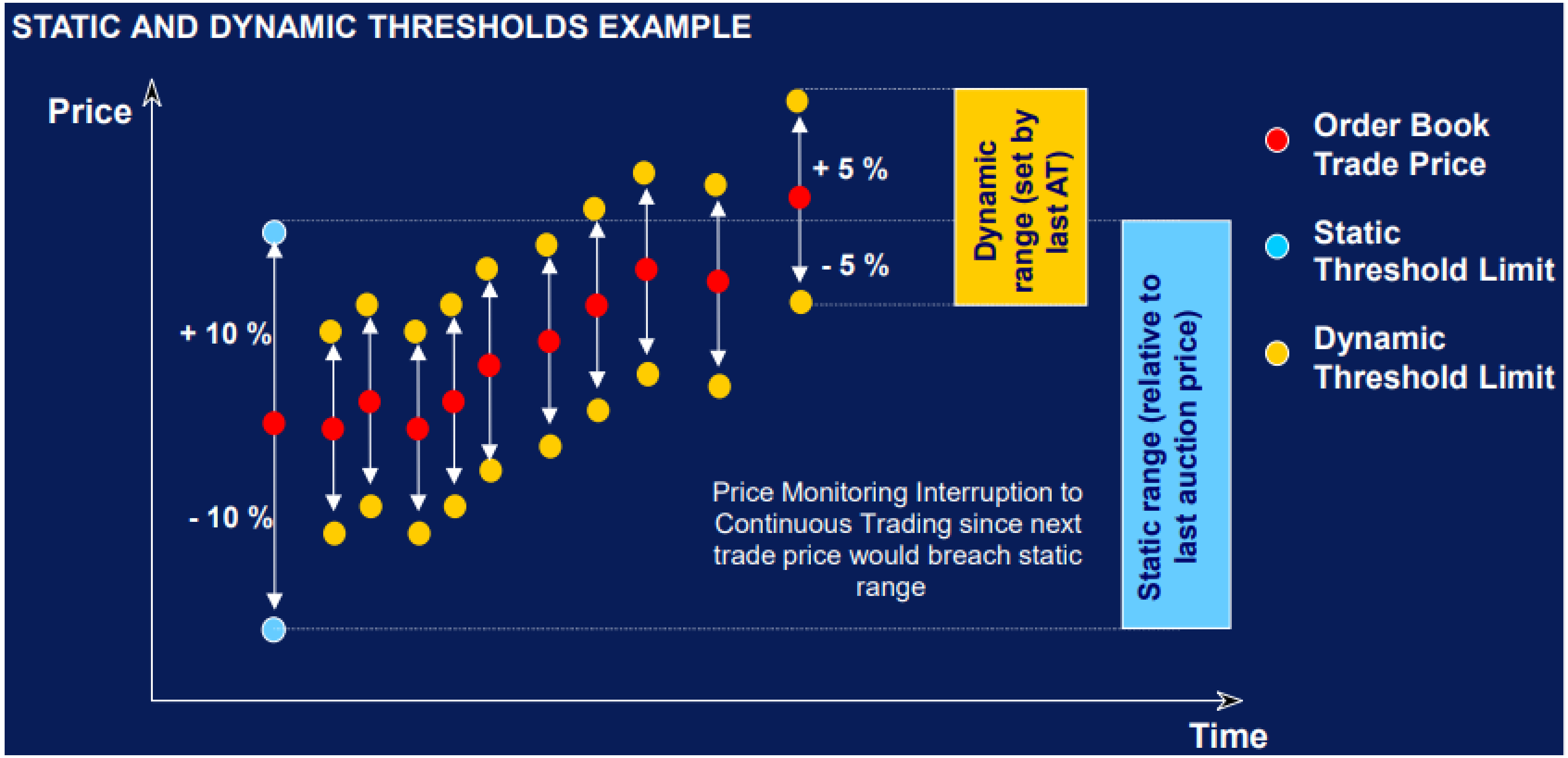
EQM CIRCUIT BREAKERS

Circuit breaker tolerances are defined at a trading session level. Relevant percentages have been defined as follows:

Trading Sessions	ZA01		ZA02		ZA03		ZA04		ZA06	
	Static Circuit Breaker	Dynamic Circuit Breaker	Static Circuit Breaker	Dynamic Circuit Breaker	Static Circuit Breaker	Dynamic Circuit Breaker	Static Circuit Breaker	Dynamic Circuit Breaker	Static Circuit Breaker	Dynamic Circuit Breaker
Opening Auction Call	8%	6%	20%	10%	50%	25%	70%	50%	20%	8%
Continuous Trading	10%	3%	15%	5%	50%	25%	N/A		15%	5%
Intraday Auction Call	N/A		N/A		50%	25%	N/A		N/A	
Closing Auction Call	4%	2%	10%	5%	50%	25%	N/A		20%	8%
FCO Auction Call	15%	2%	30%	4%	N/A		N/A		30%	4%
Re-Opening Auction Call	8%	6%	20%	10%	50%	25%	70%	50%	20%	8%

* *These values may be reviewed by the JSE from time to time.*

CIRCUIT BREAKER THRESHOLD ILLUSTRATION



Key concept

Price moves within two thresholds:

Dynamic threshold- moves with each trade
Static threshold-fixed from a reference price

- Trades can occur within both limits
- If the next trade would breach these thresholds a circuit breaker is triggered and the instrument moves into volatility auction

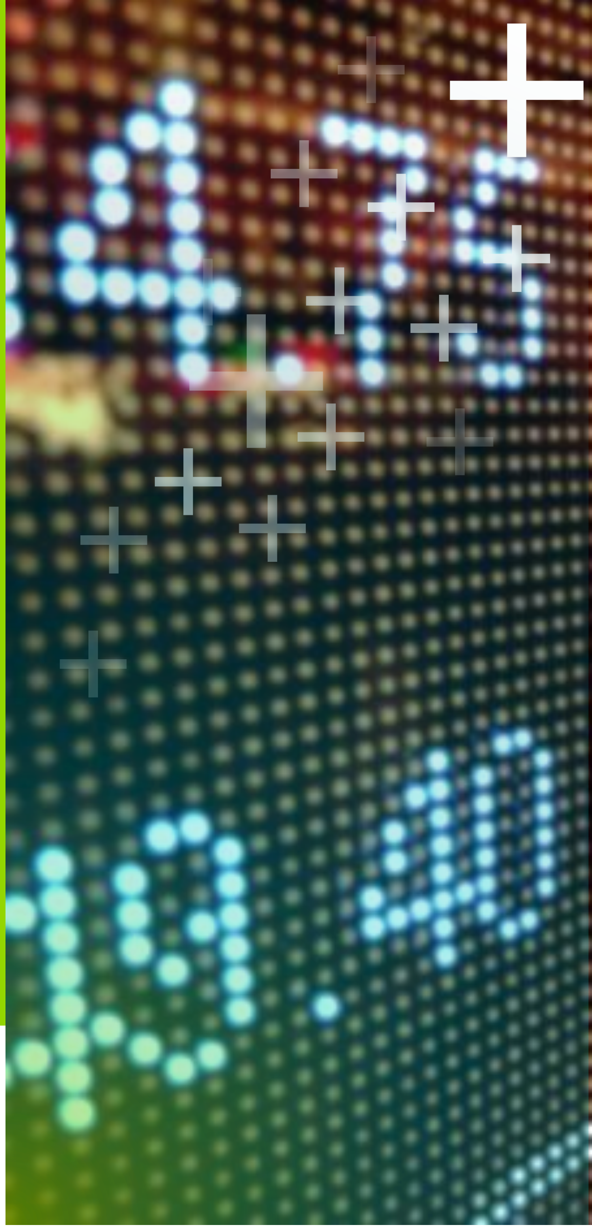
Thresholds shown are illustrative. Actual values vary by trading segment and session.

AUCTION CALL EXTENSION

Possible Extensions to Auction Call Sessions:

	Opening Auction Call	Continuous Trading & Volatility Auction Call	Intra-Day Auction Call	Closing Auction Call	FCO Auction Call
Market Order Extension	One	One	One	One	One
Price Monitoring Extension	One	No Extension	No Extension	Two	Two

This is an indication of the maximum number of extensions and may vary across trading segments.



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AUCTION CALL EXTENSIONS

If, while calculating the price that orders can execute, it is established that there will be:

- Unexpected Market Orders – a Market Order Extension (MOE) will be invoked.
- Excessive Price Movement – a Price Monitoring Extension (PME) will be invoked.

Pre-Match Checks

- During the auction call period, orders are collected
- Before matching, the system evaluates:

  - Are there unexecuted markets orders?
  - Is the indicative auction price within tolerance?

Matching will only proceed once both conditions are satisfied

Auction Extensions

Market Order Extension (MOE)

- Triggered when market orders cannot be fully executed
- Allows time to resolve order imbalance (2 min)

Price Monitoring Extension (PME)

- Triggered when indicative price breaches tolerance
- Delays matching to allow price stabilization (5 min)

Market Order Extensions takes priority over PME

Matching Outcome

- After each extension, conditions are re-evaluated
- Extensions may repeat if required

Auction Uncrossing (Match) occurs when:

- No remaining market order imbalance
- Price is within tolerance
- No further extension apply

The auction will only match once both price stability and order balance conditions are met

Circuit Breakers: Impact on Orders

Handling Remaining Quantity

- When a circuit breaker is triggered during continuous trading:
- The remaining portion of the aggressing order is:
  - Added to the order book (If persistent)
  - Expired (If non-persistent)

IOC/Market Orders

- IOC/Market orders (including Market IOC)
  - Expire immediately when a circuit breaker is triggered
- Execution report message:
  - Expired (circuit breaker breached)

Messaging

- Circuit breaker events are communicated via the Drop Copy Gateway
- A ‘**News’** message is published when a circuit breaker is triggered

The message includes:

Time of the breach
Instrument(symbol)
The headline as ‘Circuit Breaker Breach’
Details of the order that triggered the breach
Type of alert (e.g., trading halt or warning)

Messages are flagged as high priority and available in real time.

EDM CIRCUIT BREAKERS

The following percentages have been defined for the Equity Derivatives Market:

Single Stock Futures		
Trading Session	Static Circuit Breakers %	Dynamic Circuit Breakers %
Continuous Trading	8%	4%
Opening Auction	8%	4%
Volatility Auction Call	8%	4%
Re-Opening Auction Call	8%	4%

Index (excl. TOPI) Futures		
Trading Session	Static Circuit Breakers %	Dynamic Circuit Breakers %
Continuous Trading	5%	1%
Opening Auction	5%	1%
Volatility Auction Call	5%	1%
Re-Opening Auction Call	5%	1%

TOPI Futures		
Trading Session	Static Circuit Breakers %	Dynamic Circuit Breakers %
Continuous Trading	5%	1%
Opening Auction	5%	1%
Volatility Auction Call	5%	1%
Re-Opening Auction Call	5%	1%

Currency Derivatives | Price Bands

The following price bands have been defined for the Currency Derivatives Market

Currency Derivatives Market	
Price band Inner Limit%	4%
Price band Outer Limit	8%

- The **inner price band (4%)** acts as a monitoring threshold
- The **outer price band (8%)** defines the allowable range for the order entry –orders outside this range are rejected
- Price bands do not restrict the execution of off-book trades, even if the threshold is exceeded.

The JSE Trading System will notify all Firms involved in a particular Trade Reporting Process where a Reported trade occurs at a price that is 'far away' from the Market Reference Price. This is indicated in the Trade Capture Report message by the *PBBreached* field, where a '0' (zero) indicates 'No Breach', and a '1' indicates 'Breach'

EQM| Price Band

The following price band has been defined for the ZA01 segment:

Equity Market	
PB Outer Limit Percentage (%)	±90% from the static reference price

These are designed to prevent far-off orders from disproportionately influencing the indicative Auction Price (IAP) and to maintain orderly price formations. Orders entered outside of these defined thresholds will be rejected by the trading system.

EQM| Self –Match Prevention

- ❑ Prevents unintended execution against resting orders from the same participant
- ❑ If a self-match scenario occurs, the Resting Order will be cancelled
- ❑ Available sessions: Continuous Trading and Closing Price Cross only
- ❑ Applied using a unique SMP key assigned to each participant
- ❑ Circuit breaker checks are performed before SMP is applied

Key Points

- ❑ SMP is **optional** and must be enabled per CompID
- ❑ Unique SMP Keys are provided by the exchange
- ❑ SMP is only applicable to the JSE Equity Market
- ❑ Commonly used in high-frequency and algorithmic trading
- ❑ Market protection (e.g. circuit breakers) takes priority over SMP

SELF MATCH PREVENTION WORKED EXAMPLE

Submission of an Order with a Unique Key via FIX / Native Trading Gateway Resulting in Self-Match Prevention

Main Order Book							
Order ID	Unique Key	CompID	Bid Size	Bid Price	Offer Price	Offer Size	Order ID
B1	CL1	CompID1	200	85210			
B2	CL2	CompID2	100	85210			

A Trader via CompID1 submits a sell limit order S1 of 300 quantity at price 85210 with a unique key of CL2 via the FIX Trading Gateway.

The following trade will be executed

Trade	Buy Order	Sell Order	Exec Qty	Exec Price
T1	B1	S1	200	85210

Order B2 will be expired due to Self –Match Prevention
The remainder of the S1 order of 100 qty will be added to the order book

Thank you

Kindly scan the QR code to share your feedback, or use the survey link provided in the chat

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