

Momentum Stack Breakout

Expert Advisor Documentation

PLATFORM

MetaTrader 5 (MT5)

TYPE

Momentum Continuation (Price Action)

TIMEFRAME

H1 (recommended)

WEBSITE

www.algotbot.live

⚠ Important Disclaimer This document is for educational and informational purposes only. It does not constitute financial or investment advice. Trading forex, CFDs, and other leveraged instruments involves substantial risk of loss and is not suitable for all investors. Past backtest performance does not guarantee future results. Never trade with capital you cannot afford to lose.

Overview

Momentum Stack Breakout is a pure price-action, momentum-continuation Expert Advisor for MetaTrader 5. It uses **no indicators whatsoever** — no moving averages, no RSI, no ATR. Every decision is made from raw OHLC data: candle bodies, ranges, closes and swing extremes.

The core idea is the **stack**: a run of N consecutive same-direction candles where each one has a dominant body (small wicks), closes beyond the previous close, and prints a fresh extreme — a higher high for an up-stack, a lower low for a down-stack. That staircase is the footprint of one-way institutional order flow; it is the price-action generalisation of the classic "three white soldiers / three black crows" pattern extended to N bars with an added strength gate.

Momentum Stack Breakout rides the direction of a confirmed stack on continuation, but it deliberately **refuses the final blow-off**. An **exhaustion guard** rejects setups where the newest candle's body balloons far past the rest of the stack — a climactic surge that usually snaps back rather than continuing. Risk is structural: the stop sits just beyond the base of the surge (the oldest stack candle's extreme), and the target is a fixed reward-to-risk multiple of that distance.

Why no indicators? Indicators are derived, lagging transforms of price. By reading the candles directly, Momentum Stack Breakout reacts to conviction the moment it prints on the chart — and the same logic behaves identically in the MQL5 backtester and in live trading, with nothing to recalibrate.

How It Works

The EA evaluates the market **once per newly-closed bar**. On every tick it checks whether the forming bar's timestamp has changed; when it has, the bar that just closed completes the stack and is examined. This makes signals bar-stable — they do not flicker intra-bar.

Step 1 — Establish the surge direction

The most recently closed bar (shift 1) sets the candidate direction. A bullish close (`Close > Open`) looks for an up-stack; a bearish close looks for a down-stack. A doji-like bar with equal open and close is ignored.

Step 2 — Validate every candle in the stack

The stack is the most recent `StackSize` closed bars. Each one must pass three tests, scanned from the oldest (the surge base) to the newest:

- **Dominant body:** the candle's body must be at least `MinBodyRatio` of its full high-to-low range. Wick-heavy candles are rejected — they signal indecision, not conviction.
- **Matching colour:** every candle must share the surge direction. A single opposite-coloured candle invalidates the whole stack.
- **Monotonic staircase:** from the second candle on, each bar must close beyond the previous close *and* print a fresh extreme — a higher high (up-stack) or a lower low (down-stack). This guarantees clean, one-way progression.

Step 3 — Exhaustion guard

The EA computes the average body across the whole stack and compares the newest candle's body to it. If the newest body exceeds `ExhaustionMult` × the average body, the setup is rejected as a climactic blow-off — these tend to reverse rather than continue.

Exhaustion guard in action

With `ExhaustionMult = 2.50` and a 3-bar stack whose average body is 20 pips, a final candle with a 60-pip body (3.0× average) is rejected. A 45-pip final candle (2.25×) is still accepted. The guard filters out the bars most likely to mark a top or bottom.

Step 4 — Structural stop, fixed reward target

Once a stack passes, the EA measures the stack's full range (highest high minus lowest low) and derives a buffer of `StopBufferPct` × that range. Orders are then placed at the current market price:

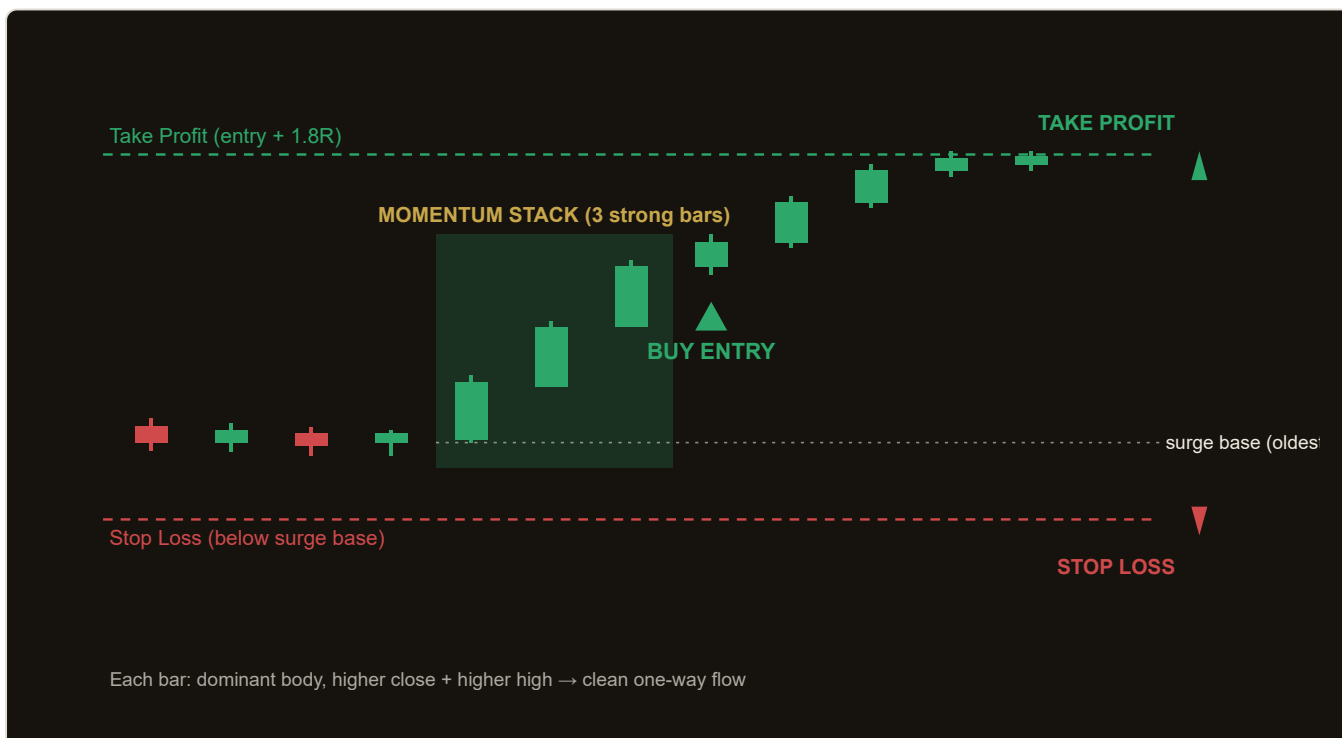
- **Long (up-stack):** enter at the Ask. Stop-loss is set *below* the oldest stack candle's low, minus the buffer. Take-profit is the entry plus `RewardRisk` × the entry-to-stop distance.
- **Short (down-stack):** enter at the Bid. Stop-loss is set *above* the oldest stack candle's high, plus the buffer. Take-profit is the entry minus `RewardRisk` × the entry-to-stop distance.

If the computed risk is non-positive (entry already beyond the stop), the trade is skipped. Stop and target are normalised to the symbol's digits before the order is sent.

One surge at a time. The EA holds at most one open position per magic number on the symbol. It rides a single stack to its conclusion — it never pyramids or stacks additional entries onto a running trade.

Strategy in Action

The illustration below shows an example of how the strategy identifies a setup and triggers its entry and exit. This is a simplified, illustrative example for educational purposes — not real market data.



Illustrative example only. Actual market behaviour varies.

Parameters

Parameter	Default	Description
StackSize	3	Number of consecutive same-direction "strong" candles required to form a valid surge stack. Range 2–6 (step 1). Larger values demand stronger, rarer runs.
MinBodyRatio	0.55	Minimum body-to-range ratio each stacked candle must satisfy. Range 0.35–0.85 (step 0.05). Higher values reject wick-heavy, indecisive bars.
ExhaustionMult	2.50	Exhaustion guard. The setup is rejected if the newest candle's body exceeds this multiple of the stack's average body. Range 1.50–5.00 (step 0.25).
StopBufferPct	0.15	Extra stop distance beyond the surge base extreme, expressed as a fraction of the whole stack's range. Range 0.00–1.00 (step 0.05).
RewardRisk	1.80	Take-profit distance as a multiple of the entry-to-stop risk. Range 1.00–4.00 (step 0.20). A value of 1.80 targets 1.8× the risked distance.
Lots	0.10	Fixed position size in lots. Range 0.01–1.00 (step 0.05). Set to suit your account size and risk tolerance.
Magic	1001	Magic number identifying this EA's positions. Keep it unique per chart so the one-position-at-a-time rule isolates this strategy from others.

Recommended Settings

The defaults are a balanced starting point. The strategy works on any symbol but is best suited to instruments that trend cleanly with well-formed candles. Always validate on your own broker's data in the MT5 Strategy Tester before going live.

SUGGESTED BASELINE

- **Timeframe:** H1 is the recommended baseline — large enough that each candle carries meaningful conviction, small enough to produce regular setups. M30 and H4 are reasonable alternatives.
- **Instruments:** liquid majors (e.g. EUR/USD, GBP/USD), major indices, or gold — markets that produce sustained directional runs.
- **StackSize:** 3 for a balance of frequency and quality. Use 2 for more (weaker) signals, 4–6 for fewer, higher-conviction surges.
- **MinBodyRatio:** 0.55 default. Raise toward 0.65–0.75 to demand cleaner momentum on choppy symbols.
- **RewardRisk:** 1.80 default. Lower toward 1.2–1.5 for a higher hit-rate, raise toward 2.5–3.0 to let winners run further.

Tuning tip. Adjust one parameter at a time and re-run the backtest. Because every input maps directly to a candle measurement, the effect of each change is easy to reason about: `MinBodyRatio` controls candle quality, `StackSize` controls run length, `ExhaustionMult` controls how much of a climax you tolerate, and `RewardRisk` controls the win-rate / payoff trade-off.

Position sizing. The `Lots` input is a fixed lot size — it does not scale to account equity or to the per-trade stop distance. Size it conservatively relative to your balance and the typical stop width on your chosen symbol and timeframe.

How to Install on MetaTrader 5

- 1 Copy `MomentumStackBreakout.ex5` to your MT5 `MQ5\Experts\` folder
- 2 Restart MetaTrader 5 and refresh the Navigator panel
- 3 Drag the EA onto a chart matching the recommended symbol and timeframe
- 4 Configure the input parameters and click **OK**
- 5 Enable **Algo Trading** in the MT5 toolbar

Before going live. Run Momentum Stack Breakout in the MT5 Strategy Tester across several years and market regimes, then on a demo account, to confirm its behaviour on your broker's spreads and execution before committing real capital.

Risk Warning

Trading foreign exchange, CFDs, and other leveraged financial instruments involves substantial risk of loss and is not suitable for all investors. The strategies and tools described in this document are provided for **educational purposes only** and do not constitute financial advice, investment recommendations, or solicitation to trade. Always consult a qualified financial adviser before making trading decisions. Past backtest performance is not indicative of future results.