

Parabolic Stall Reversal

Expert Advisor Documentation

PLATFORM

MetaTrader 5 (MT5)

TYPE

Price-Action Exhaustion Reversal

TIMEFRAME

H1 / H4

WEBSITE

www.algotbot.live

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Overview

Parabolic Stall Reversal is a pure price-action Expert Advisor that fades exhausted directional moves — it uses *no indicators whatsoever*. Every decision is derived from raw OHLC (open, high, low, close) candle data.

The core idea is that strong, sustainable trends rarely end with a whimper. Instead, a powerful move is often built from a run of same-coloured candles that *accelerate* into a fresh price extreme — a "parabolic thrust" — before the move runs out of fuel. The EA waits for exactly this pattern: a streak of consecutive bullish (or bearish) candles that print a fresh high (or low) and advance by a meaningful multiple of recent volatility. It then takes the reversal only when the very next candle decisively **stalls** the run.

A bullish exhaustion peak is faded with a **short**; a bearish exhaustion trough is faded with a **long**. Stops are placed structurally, just beyond the exhaustion extreme, and the profit target is a configurable multiple of that risk.

Note: Because the strategy reacts only to *closed* candles and is computed entirely from price, it behaves identically in backtest and live trading — there are no indicator handles, repainting, or look-ahead artefacts to worry about.

How It Works

The EA evaluates the market **once per freshly closed bar** and holds at most one position at a time (the trade is managed entirely by its stop-loss and take-profit). A new setup is assessed only when no position from this EA is currently open.

1. Detecting the Exhaustion Run

Working backwards from the most recently closed bars, the EA inspects a streak of `StreakBars` consecutive same-coloured candles (shifts 2 through `StreakBars + 1`). To qualify as an exhausted move, all of the following must hold:

- **Consistent direction** — every bar in the streak closes in the same direction (all bullish for a peak, all bearish for a trough).
- **Peak at the end** — the extreme of the streak (its highest high or lowest low) is set by the most recent streak bar, confirming the move was still accelerating into exhaustion.
- **Fresh extreme** — that high/low must exceed every bar across the prior `Lookback` window, so the move is breaking new ground rather than retesting old levels.
- **Parabolic thrust** — the net advance of the streak (extreme minus the opposite side of the oldest streak bar) must be at least `MinThrustMult` × the average bar range over the last `RangePeriod` bars.

2. Confirming the Stall

A fresh extreme alone is not enough. The reversal is only taken when the **trigger bar** (shift 1, the bar immediately after the peak) decisively rejects the move:

- **Opposite colour** — the trigger bar closes against the streak's direction.
- **Closes back through** — its close pierces back beyond the prior bar's close.
- **Far-half finish** — the close lands in the far half of the trigger bar's own range (below the midpoint after a peak, above it after a trough), signalling a strong rejection rather than a shallow pause.

Example — Bullish exhaustion → SHORT

Four green candles accelerate into a fresh 25-bar high, advancing roughly 2.5× the average bar range. The next candle opens near the high, turns red, closes back below the previous candle's close, and finishes in the lower half of its range. The EA sells at the current bid.

3. Entry, Stop, and Target

Once a valid setup is confirmed, the EA opens a market order and lets the stop and target manage the exit:

- **Entry** — market order at the bid (short) or ask (long).

- **Stop loss** — placed just beyond the exhaustion extreme, padded by `StopBufferPct` % of the average bar range. For a short: $SL = streakHigh + buffer$; for a long: $SL = streakLow - buffer$.
- **Take profit** — set at `RewardRisk` × the structural risk distance from entry. The trade is rejected if the computed risk is not positive.

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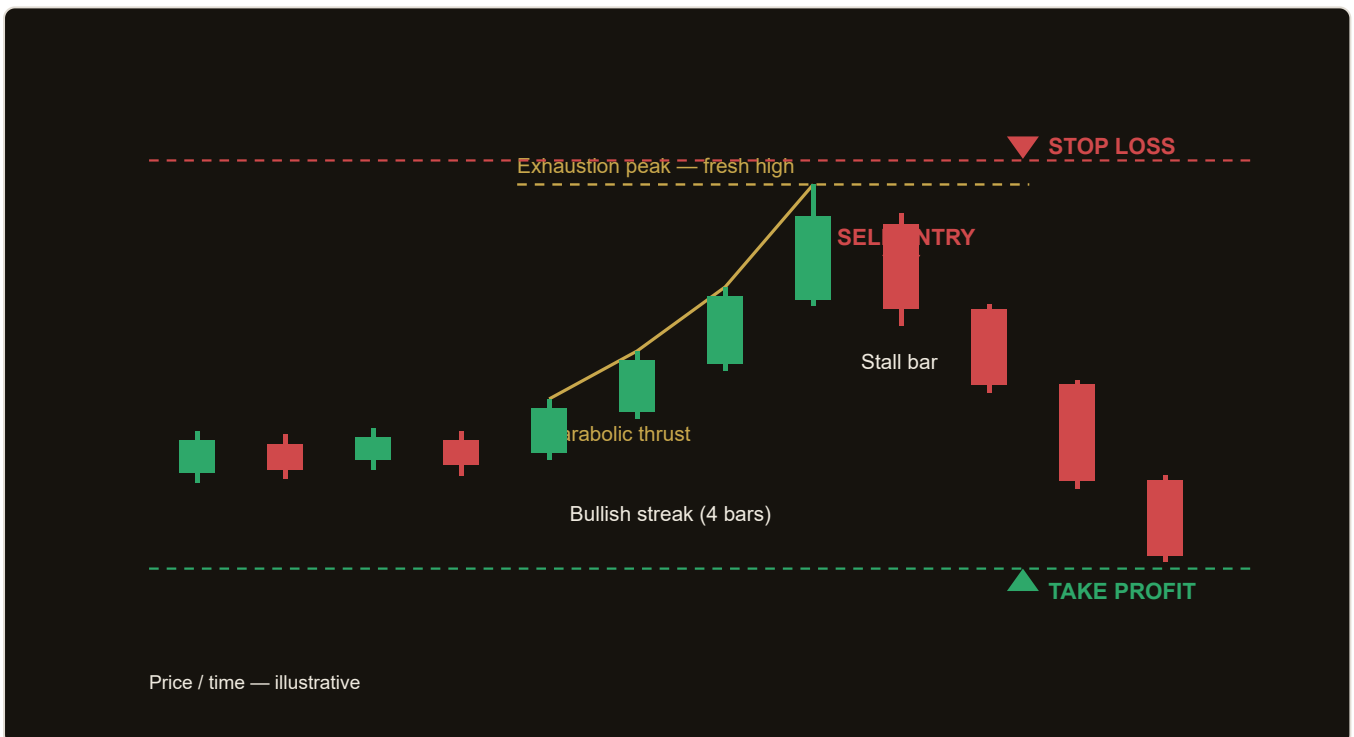
risk = | entry - stopLoss |
takeProfit (short) = entry - RewardRisk × risk
takeProfit (long)  = entry + RewardRisk × risk

```

Tip: Because both the stop and the target scale with recent volatility and structure, the EA naturally widens its stops in fast markets and tightens them in quiet ones — without any manual intervention.

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
StreakBars	4	Number of consecutive same-coloured closed candles required to form the exhaustion run. Range 3–8.
Lookback	25	Window (in bars) beyond the streak that the exhaustion extreme must dominate to count as a fresh high/low. Range 10–60, step 5.
MinThrustMult	2.5	Minimum net advance of the streak, expressed as a multiple of the average bar range. Higher values demand a more violent, "parabolic" move. Range 1.0–6.0, step 0.5.
RewardRisk	1.8	Take-profit distance as a multiple of the structural stop distance (risk). Range 0.5–5.0, step 0.5.
StopBufferPct	20.0	Extra stop padding placed beyond the exhaustion extreme, as a percentage of the average bar range. Range 0–100, step 5.
RangePeriod	14	Number of recent bars used to compute the average bar range that drives thrust and buffer sizing. Range 5–30, step 1.
Lots	0.10	Fixed trade volume in lots. Range 0.01–1.0, step 0.05.
Magic	7373	Magic number used to identify and manage positions opened by this EA.

Recommended Settings

Because the strategy fades mature, exhausted moves, it works best on liquid instruments where multi-bar runs and clean rejections are common. Suggested starting points:

- **Symbols:** major FX pairs (EUR/USD, GBP/USD, USD/JPY) and major indices.
- **Timeframe:** H1 for more frequent setups, H4 for higher-quality but rarer signals.
- **Thrust filter:** keep `MinThrustMult` at 2.5 or higher to ensure you only fade genuinely overextended moves — lowering it produces many more (and noisier) signals.
- **Reward/risk:** the default `RewardRisk` of 1.8 balances win rate against payoff. Raise it for a trend-fade-then-run profile; lower it for a higher hit rate.
- **Stop buffer:** a 20% buffer keeps the stop just clear of the wick that printed the extreme. Increase it on noisier symbols to avoid premature stop-outs.

Tip: Always validate any parameter set with the MT5 Strategy Tester on several years of history and on a demo account before considering live deployment. The defaults are a sensible starting point, not an optimised configuration.

How to Install on MetaTrader 5

- 1 Copy `ParabolicStallReversal.ex5` to your MT5 `MQL5\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

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.