

Equal Highs Shelf Breakout

Expert Advisor Documentation

PLATFORM	TYPE	TIMEFRAME	WEBSITE
MetaTrader 5 (MT5)	Price-Action Breakout	H1 (adaptable)	www.algoBot.live

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Overview

Equal Highs Shelf Breakout is a pure price-action breakout system. It uses no moving averages, RSI, ATR, or any other indicator — every decision is derived directly from raw bar highs, lows, opens, and closes on a single primary timeframe.

The core idea is that genuine breakouts launch from a horizontal *shelf*: a price level that has been tested several times, leaving behind a cluster of near-equal highs (a resistance shelf) or near-equal lows (a support shelf). When a single momentum candle **closes** cleanly through that shelf — with most of its range expressed as body rather than wick — it signals committed order flow rather than a one-bar spike. The EA trades that close, anchors a structural stop on the far side of the reclaimed shelf, and targets a fixed R-multiple of the resulting risk.

Why a “shelf” and not just a high? A level that has been touched three or more times is a level the whole market is watching. Requiring multiple near-equal touches filters out random single-bar extremes and concentrates entries where a real supply/demand boundary is breaking.

How It Works

The strategy evaluates logic only on completed bars. On each new bar it appends the just-closed bar to a rolling history buffer and re-scans for a qualifying shelf and breakout. Only one position per symbol/magic is allowed at a time.

1. Volatility proxy (avg range)

Because no indicator library is used, volatility is approximated by the average true range of the last `14` completed bars (`RangeWindow`). This average range scales the two key tolerances so the strategy adapts to fast and slow instruments alike:

- **Equal-level tolerance** = `TolerancePct × avgRange` — how close two highs (or lows) must be to count as “equal”.
- **Breakout buffer** = `BreakBufferPct × avgRange` — the cushion a close must clear beyond the shelf to confirm.

2. Building the shelf

The shelf is built from the `LookbackBars` bars *before* the breakout candidate. For a resistance shelf the EA finds the highest high in that window, then counts how many bars have a high within tolerance of it. A support shelf mirrors this using the lowest low. A shelf qualifies only when the touch count reaches `MinTouches` .

3. The breakout candle

The most recently closed bar is the breakout candidate. It must be a **strong-body** candle: the absolute body size (`|Close - Open|`) must be at least `BodyFraction` of the candle’s full range. This rejects indecisive doji-like bars that wick through a level but lack conviction.

LONG ENTRY (RESISTANCE SHELF BREAK)

- Strong-body bar that closes higher (`Close > Open`)
- At least `MinTouches` near-equal highs form the shelf
- The bar closes above the shelf plus the buffer: `Close > maxHigh + buf`

SHORT ENTRY (SUPPORT SHELF BREAK)

- Strong-body bar that closes lower (`Close < Open`)
- At least `MinTouches` near-equal lows form the shelf
- The bar closes below the shelf minus the buffer: `Close < minLow - buf`

4. Stop loss, take profit & sizing

Entries are taken at the live market price (Ask for longs, Bid for shorts). The stop is structural — placed on the far side of the reclaimed shelf and the breakout bar:

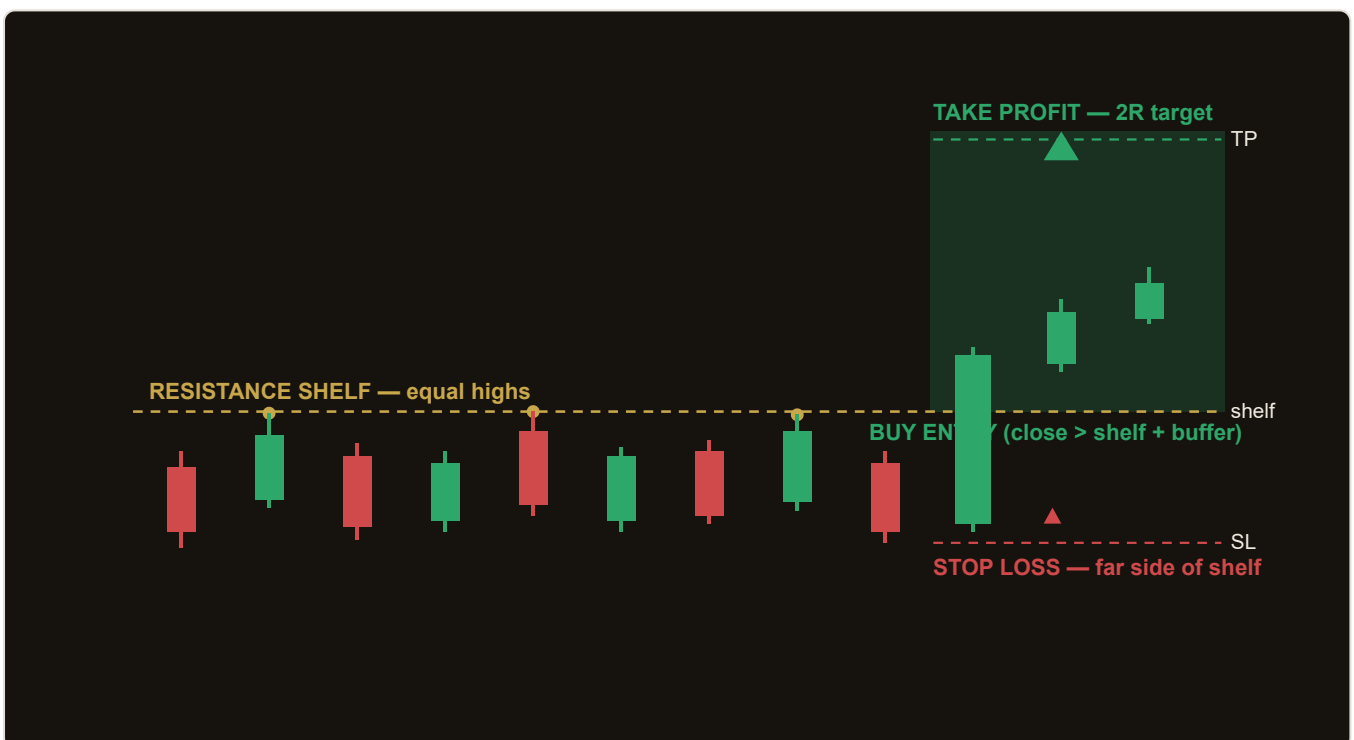
```
Long:  SL = min(breakLow, shelf - tol) - buf
       risk = entry - SL
       TP = entry + RiskReward × risk
```

```
Short: SL = max(breakHigh, shelf + tol) + buf
       risk = SL - entry
       TP = entry - RiskReward × risk
```

Position size is a fixed **Lots** volume. If the computed risk is zero or negative the trade is skipped. Each order carries the configured **Magic** number and a **ShelfBreak L** / **ShelfBreak S** comment for easy identification.

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
LookbackBars	30	Number of bars before the breakout candle used to build the shelf. Range 12–60, step 2. Larger values require a longer, more established level.
MinTouches	3	Minimum number of near-equal highs (or lows) required for a level to qualify as a shelf. Range 2–6, step 1. Higher = stricter, fewer signals.
TolerancePct	0.25	How close highs/lows must be to count as “equal,” as a fraction of average range. Range 0.05–0.60, step 0.05.
BreakBufferPct	0.10	Confirmation cushion a close must clear beyond the shelf, as a fraction of average range. Range 0.00–0.50, step 0.05.
BodyFraction	0.50	Minimum candle body as a fraction of the breakout bar’s full range. Range 0.20–0.80, step 0.05. Filters weak, wicky breakouts.
RiskReward	2.0	Take-profit multiple of the measured stop distance (TP = RiskReward × risk). Range 1.0–4.0, step 0.5.
Lots	0.10	Fixed order volume in lots. Range 0.01–1.0, step 0.05.
Magic	4242	Magic number identifying this EA’s positions, so it manages only its own trades.

Recommended Settings

The defaults are a balanced starting point for liquid instruments on the H1 timeframe. Tune from there based on the symbol’s personality and your risk tolerance.

Suggested baseline (H1, major FX pair)

- **LookbackBars:**
30 — captures roughly a session's worth of structure
- **MinTouches:**
3 — a genuine, repeatedly-tested shelf
- **TolerancePct:**
0.25
- **BreakBufferPct:**
0.10
- **BodyFraction:**
0.50 — the breakout bar is at least half body
- **RiskReward:**
2.0 — targets twice the structural risk
- **Lots:**
size to keep per-trade risk modest relative to account equity

Tuning tips. For choppy, lower-volatility instruments, raise `BreakBufferPct` and `BodyFraction` to demand cleaner breakouts. For trend-prone markets, a higher `RiskReward` (2.5–3.0) lets winners run. Increasing `MinTouches` reduces trade frequency but raises the quality bar of each shelf. Always re-validate any change with a fresh backtest and forward test before going live.

Single position at a time. The EA holds only one open trade per symbol/magic. Confirm the lot size and the resulting monetary risk per trade on your account before enabling live trading — the stop is structural and its distance varies with volatility.

How to Install on MetaTrader 5

- 1 Copy `EqualHighsShelfBreakout.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.