

Thrust Imbalance Rebound Hedge

Expert Advisor Documentation

PLATFORM	TYPE	TIMEFRAME	WEBSITE
MetaTrader 5 (MT5)	Price-Action Imbalance (FVG) Continuation	M15 – H1	www.algotbot.live

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Overview

Thrust Imbalance Rebound Hedge is a pure price-action Expert Advisor that uses **no technical indicators whatsoever**. Every decision — thrust strength, gap size, stop distance and target — is measured directly from candle highs, lows, opens and closes.

The strategy pairs two complementary ideas around a single concept: the **Fair Value Gap (FVG)**, also called a 3-candle imbalance. An FVG is a price void left behind when a decisive **thrust** candle moves so fast that the candle before it and the candle after it never overlap — for a bullish gap, the high of the first candle sits entirely below the low of the third.

- **Rebound continuation** — the primary trade. When price dips back into the fresh gap and then closes in the thrust direction (momentum resuming), the EA enters with the trend, using a structure-based stop and an R-multiple target.
- **Inversion hedge** — the recovery trade. If price instead closes fully *through* the gap, the imbalance is treated as flipped (former support becomes resistance, or vice-versa). A separately tagged hedge leg is opened in the new direction, so an invalidated gap becomes the next opportunity rather than a pure loss.

Only one imbalance is tracked at a time. There is no manual basket management — every exit is handled by the stop-loss and take-profit attached to each order.

What makes it different: Unlike a classic wick-rejection FVG entry that fires the instant price touches the gap, this system *waits for a confirming close* in the thrust direction. That filter trades a little entry timing for confirmation that momentum is genuinely resuming.

How It Works

The EA acts **once per fully closed bar**. On each new bar it appends the just-closed candle to an internal rolling window, recomputes the average bar range, and then evaluates the logic in two ordered phases: first it manages any imbalance it is already tracking, and only if none exists does it look for a brand-new one.

1. Detecting the thrust imbalance

The EA inspects the most recent trio of closed candles — `c1` (oldest), `c2` (the middle *thrust* candle), and `c3` (newest). A valid imbalance requires two things at once:

- **A decisive thrust** — the body of `c2` must dominate its own range: $|close - open| \geq ThrustBodyFraction \times (high - low)$. This rejects indecisive, wicky candles.
- **A clean 3-candle gap** — for a bullish setup $c1.High < c3.Low$ (mirror for bearish). The vertical void between those two prices is the gap zone (`zLow ... zHigh`).

The gap must also clear a quality filter: its height must be at least $MinGapFactor \times AverageRange$, where `AverageRange` is the mean high-to-low range over the last `RangeLookback` bars. This discards micro-gaps that form in chop.

Example — bullish imbalance

A strong green thrust candle prints, and the candle that follows opens above the high of the candle that preceded the thrust. The void between `c1.High` and `c3.Low` is recorded as the gap. As long as it is wide enough relative to recent ranges, the EA begins tracking it and waits for price to return.

2. Rebound continuation entry (primary leg)

While an untraded gap is alive (and no primary position is open), the EA watches for the first candle that taps the gap and closes with momentum. For a bullish gap, all three of the following must be true on the newest closed bar:

- **Tagged** — $c3.Low \leq zHigh$ (price dipped back into the gap).
- **Held** — $c3.Close > zLow$ (it stayed above the gap floor).
- **Momentum** — $c3.Close > c3.Open$ (the bar closed bullish, i.e. the thrust is resuming).

When met, a **Buy** is sent at the Ask. The bearish setup is the exact mirror (poke into the gap from above, close below the ceiling, close bearish → **Sell** at the Bid).

3. Stops, targets and risk

The stop is anchored to structure, not to a fixed pip count. A buffer of `StopBufferMult × AverageRange` is added beyond the protective level:

```
Buy SL = min(c3.Low, zLow) - buffer
Buy TP = entry + TakeProfitRR × (entry - SL)

Sell SL = max(c3.High, zHigh) + buffer
Sell TP = entry - TakeProfitRR × (SL - entry)
```

The take-profit is a pure **R-multiple** of the measured risk. With the default `TakeProfitRR = 2.0`, every winning trade targets twice the distance risked.

4. Inversion hedge

If, instead of rebounding, price closes fully through the gap — `c3.Close < zLow` for a bullish gap (or `c3.Close > zHigh` for a bearish one) — the imbalance is considered **violated** and inverted. When `EnableHedge = 1` and no hedge position is already open, the EA opens an opposite leg under a separate magic number:

- **Bullish gap fails** → it becomes resistance → **Sell** at the Bid, `SL = zHigh + buffer`, TP at the same R-multiple.
- **Bearish gap fails** → it becomes support → **Buy** at the Ask, `SL = zLow - buffer`, TP at the same R-multiple.

After a violation the tracked gap is discarded, so the EA is immediately free to find the next imbalance.

5. Housekeeping & lifecycle

- **Stale gaps** — an untraded gap that is never tapped is dropped once its age exceeds `ExpiryBars` bars.
- **Completed trades** — once the primary leg has been entered and its position has fully closed (SL or TP hit), the gap is cleared so a new one can form.
- **One at a time** — the EA never detects a new gap on a bar where it is still managing an existing one, keeping its state strictly single-track.

Two magic numbers: the primary rebound leg uses `Magic` (default `9200`) and the inversion hedge uses `Magic + 1` (`9201`). This lets the two legs be opened, tracked and closed completely independently.

Parameters

Parameter	Default	Description
Lots	0.10	Fixed trade volume in lots for both the primary and hedge legs. Range 0.01–1.0, step 0.01.
ThrustBodyFraction	0.55	Minimum fraction of the thrust candle's total range that its body must occupy to qualify as a decisive impulse. Higher = stricter. Range 0.30–0.90, step 0.05.
MinGapFactor	0.25	Minimum gap height as a multiple of the average bar range. Filters out micro-gaps formed in chop. 0 disables the filter. Range 0.00–1.50, step 0.05.
TakeProfitRR	2.00	Take-profit distance expressed as a reward-to-risk multiple of the measured stop distance. Range 1.0–5.0, step 0.5.
StopBufferMult	0.30	Extra padding beyond the structural stop, as a multiple of the average bar range. Reduces premature stop-outs. Range 0.0–1.5, step 0.1.
ExpiryBars	15	Number of bars an untouched gap remains valid before it is discarded as stale. Range 3–50, step 1.
RangeLookback	14	Number of recent bars averaged to compute the reference bar range used by the gap and buffer filters. Range 5–50, step 1.
EnableHedge	1	Master switch for the inversion hedge leg. 1 = on, 0 = off (rebound continuation only).
Magic	9200	Magic number for the primary rebound leg. The hedge leg automatically uses <code>Magic + 1</code> (9201).

Recommended Settings

The EA is symbol- and timeframe-agnostic because every threshold is normalised by the average bar range. As a sensible starting point:

- **Timeframe:** M15 to H1. Lower frames generate more gaps but more noise; higher frames give cleaner, less frequent imbalances.
- **Instruments:** liquid majors (EURUSD, GBPUSD, USDJPY) and major indices, where gaps form from genuine displacement rather than thin-book spikes.
- **Thrust strictness:** keep `ThrustBodyFraction` at 0.55 for a balance of frequency and quality; raise toward 0.70 if you want only the most decisive impulses.
- **Gap quality:** raise `MinGapFactor` toward 0.40–0.50 on noisier symbols to suppress shallow gaps.

- **Reward:** `TakeProfitRR = 2.0` is the default; lower it for a higher hit-rate, raise it for fewer but larger winners.

Tuning tip: Always re-optimize `ThrustBodyFraction`, `MinGapFactor` and `TakeProfitRR` together on your target symbol in the Strategy Tester before going live. Because stops are structure-based, the same parameter set behaves consistently across volatility regimes.

Hedging note: With `EnableHedge = 1` the EA may hold a hedge position in the opposite direction immediately after a gap fails. Some brokers and jurisdictions restrict hedging or apply FIFO rules — verify your account type supports simultaneous opposite positions, or set `EnableHedge = 0` to run continuation-only.

How to Install on MetaTrader 5

- 1 Copy `ThrustImbalanceReboundHedge.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

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