

Vwap Imbalance Fade Hedge

Expert Advisor Documentation

PLATFORM

MetaTrader 5 (MT5)

TYPE

Mean Reversion (VWAP Fade)

TIMEFRAME

Intraday (M5 – M15)

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

Vwap Imbalance Fade Hedge is a pure price-action, mean-reversion Expert Advisor for MetaTrader 5. It uses *no* classical indicators — no moving averages, RSI, ATR, or stochastics. Every decision is reconstructed from raw bar highs, lows, and closes, combined with an intraday **Volume-Weighted Average Price (VWAP)** that is re-anchored at the start of each new calendar day.

The core thesis is simple. Within a normal session, price tends to oscillate around the day's VWAP — the volume-weighted "fair price." When an emotional thrust drives price an abnormal distance *away* from VWAP and leaves behind a fair-value gap (a three-bar imbalance of unfilled liquidity), that excursion is usually over-extended. If the very next structure prints an **engulfing reversal** right at a swing extreme — support below or resistance above — the auction has rejected the move, and price tends to revert back toward the mean. The EA fades that rejection back toward VWAP.

The classic weakness of any fade is the day the excursion turns out to be a genuine **breakout** that simply keeps going. Rather than passively absorbing that loss, the strategy arms a single opposite **recovery hedge** once the fade has run a defined distance against it: the trapped fade dies on its stop while the hedge rides the breakout to its own target. If price instead snaps back toward VWAP, the hedge is cut early so the original fade can still reach its profit target.

Key idea: Stretch from VWAP + engulfing rejection + structural confirmation = a fade back to the mean. One opposite hedge converts the worst-case "breakout day" from a full loss into a recovery opportunity.

How It Works

Building Blocks (all from raw price)

- **VWAP** — anchored at each new calendar day. The typical price $(High + Low + Close) / 3$ of every closed bar is accumulated, weighted by tick volume (falling back to equal weight when volume is unavailable). This is the "fair price" the fade reverts toward.
- **avgRange** — the mean of $(High - Low)$ over the last `RangeLookback` closed bars. This single volatility unit scales every threshold, stop, and trigger in the system.
- **Swing Support / Resistance** — the lowest low and highest high across the `RangeLookback` window (including the signal bar).
- **Fair-Value Gap (FVG)** — a three-bar imbalance. A bearish (down) gap exists when an older bar's low sits above a newer bar's high; a bullish (up) gap when an older bar's high sits below a newer bar's low. The recent `FvgLookback` windows are scanned for one.
- **Engulfing body** — the just-closed bar's real body fully engulfs the prior bar's opposite-colored body.

Entry Logic

The EA evaluates a fresh setup only on a new closed bar and only when it is completely flat (no fade and no hedge open). All three conditions below must align:

- **STRETCH (required)** — the signal bar's close must be at least $StretchMult \times avgRange$ beyond VWAP (below VWAP for longs, above for shorts).
- **ENGULFING (required)** — the just-closed bar must engulf the prior opposite-colored body (bullish engulfing for longs, bearish for shorts).
- **CONFIRM (at least one of two)** — either a recent fair-value gap exists in the thrust direction, or the signal bar tags the swing support/resistance edge (within $SrBuffer \times avgRange$).

LONG = close stretched BELOW VWAP + bullish engulfing + (down-FVG OR at support)

SHORT = close stretched ABOVE VWAP + bearish engulfing + (up-FVG OR at resistance)

Worked example — a long fade

Suppose `avgRange` = 12 pips and VWAP = 1.10000. With `StretchMult = 1.50`, price must close at least 18 pips below VWAP (≤ 1.09820). A bar closes at 1.09780 — stretched. It is a bullish engulfing bar whose low taps a 20-bar swing support. Both the stretch and engulfing are met, and the support tag supplies confirmation → the EA opens a long, fading the over-extension back toward VWAP.

Stops, Targets & Position Sizing

- **Stop Loss** — structural, placed beyond the signal swing. For a long: `min(signalLow, priorLow) - StopMult × avgRange`. For a short: `max(signalHigh, priorHigh) + StopMult × avgRange`. The stop is widened automatically if it would violate the broker's minimum stop distance.
- **Take Profit** — set at `RewardRatio ×` the entry's risk distance, projecting back toward (or through) VWAP.
- **Volume** — the fixed `Lots` value, snapped to the symbol's volume step and clamped to its min/max limits.
- **Spread filter** — when `MaxSpreadPoints > 0`, new fades are skipped while the spread is wider than that threshold.

The Recovery Hedge

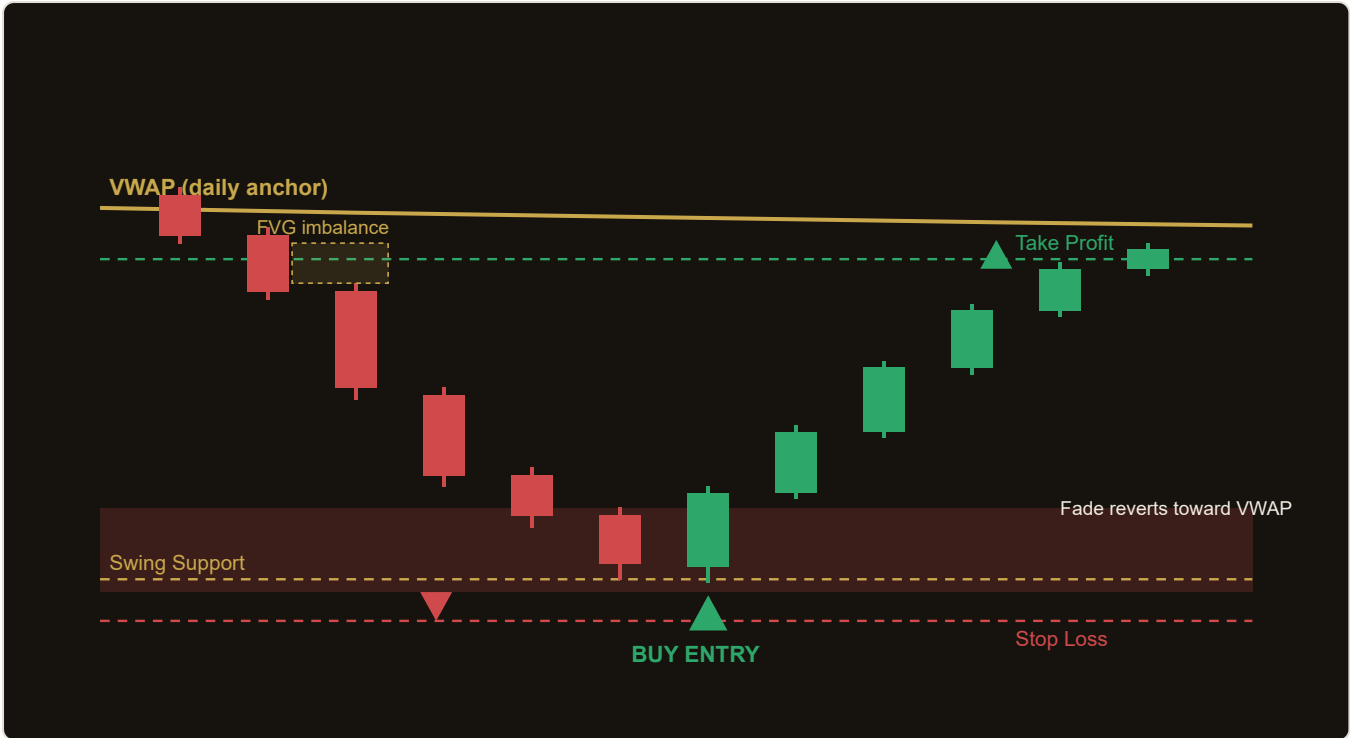
While a fade is open, the EA monitors its adverse excursion on every tick:

- **Arming** — if the lone fade runs `HedgeTriggerMult × avgRange` against the entry and no hedge yet exists, the EA fires one opposite market leg sized at `HedgeVolMult ×` the fade lots. This hedge carries its own stop (a reversion pad of `StopMult × avgRange`) and its own breakout target (`2 × trigger` in the breakout direction).
- **Cutting** — if price reverts back inside `40%` of the trigger distance before the hedge reaches its target, the hedge is closed early, leaving the original fade free to run to its take-profit.

One fade at a time. The EA only seeks a new setup when fully flat. The hedge is a recovery mechanism for an existing fade — never an independent second strategy. The `avgRange` captured at the moment of entry is reused for hedge math, so the hedge geometry stays consistent for the life of the 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
RangeLookback	20	Number of closed bars used for the volatility unit (avgRange) and the swing support/resistance window. Range 10–60, step 1.
StretchMult	1.50	How far (in avgRange units) price must stretch from VWAP to qualify a fade. Range 0.50–4.00, step 0.10.
FvgLookback	5	How many recent 3-bar windows to scan for a fair-value gap (imbalance). Range 2–15, step 1.
SrBuffer	0.25	Proximity (avgRange units) within which the signal bar counts as "at" support/resistance. Range 0.00–1.50, step 0.05.
StopMult	0.80	Structural stop padding beyond the signal swing, in avgRange units. Range 0.20–3.00, step 0.10.
RewardRatio	1.60	Take-profit distance as a multiple of the entry's risk distance. Range 0.50–5.00, step 0.10.
HedgeTriggerMult	1.20	Adverse run (avgRange units) that arms the recovery hedge. Range 0.30–4.00, step 0.10.
HedgeVolMult	1.00	Recovery hedge volume as a multiple of the fade lots. Range 0.50–3.00, step 0.10.
MaxSpreadPoints	30	Skip new fades while the spread (points) is wider than this value (0 = filter off). Range 0–500, step 1.
Lots	0.10	Fade trade volume in lots. Range 0.01–1.00, step 0.05.
Magic	7720	Magic number identifying this EA's positions. Range 0–9,999,999, step 1.

Recommended Settings

This is an intraday mean-reversion strategy: VWAP is re-anchored each calendar day, so it is designed for lower timeframes where multiple bars form within a single session.

- **Timeframe** — M5 to M15. Lower timeframes give enough intraday bars to build a meaningful VWAP and produce several fade opportunities per day.
- **Symbols** — liquid, mean-reverting instruments such as major FX pairs (EUR/USD, GBP/USD, USD/JPY) during regular session hours. Tick-volume quality matters because VWAP is volume-weighted.

- **Spread** — keep `MaxSpreadPoints` tight (the default 30 is a sensible cap for majors). Fades depend on small, precise reversions, so wide spreads erode the edge.
- **Risk** — start with the default `Lots = 0.10` on a demo account and confirm behaviour over a full session before sizing up. Remember the hedge can add a second leg of exposure.

Tuning tips: raise `StretchMult` for fewer but more over-extended setups; lower it for more frequent fades. `HedgeTriggerMult` controls how far a losing fade runs before the breakout hedge arms — smaller values hedge sooner (more protective), larger values give the original fade more room to recover on its own.

Hedging account note: this EA opens an opposite-direction leg on the same symbol. It must run on a **hedging** account (not a netting account), where simultaneous long and short positions are permitted. Verify your broker and account mode before live deployment.

How to Install on MetaTrader 5

- 1 Copy `VwapImbalanceFadeHedge.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.