

Session Vwap Rejection Reversal

Expert Advisor Documentation

| PLATFORM | TYPE | TIMEFRAME | WEBSITE |
|--------------------|-----------------------|-----------|--|
| MetaTrader 5 (MT5) | Mean Reversion (VWAP) | M5 – M15 | 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

Session Vwap Rejection Reversal is a pure mean-reversion Expert Advisor built around a single reference line: the **session-anchored Volume Weighted Average Price (VWAP)**. There are no oscillators, no moving averages, and no ATR anywhere in the logic — the only price benchmark is VWAP, and the only trigger is a price-action **rejection candle** at a VWAP deviation band.

The idea rests on how institutions trade. Large desks benchmark their day's fills against VWAP and lean on it as fair value, so intraday price is repeatedly pulled back toward it. The EA exploits that magnet effect: it waits for price to over-stretch to a standard-deviation band, demands proof that supply or demand has stepped in (a dominant rejection wick that closes price back inside the band), and then fades the extreme back toward VWAP — the mean.

Everything is self-defining and structural. The stop is the wick extreme that proved the band held (plus a small buffer), the target is fair value (VWAP), and a minimum reward:risk filter discards setups where price has already drifted too close to VWAP to be worth the stop.

How It Works

1. Session-anchored VWAP

A genuine VWAP is cumulative from the session open, so the EA resets its accumulators on each UTC-day boundary and rebuilds VWAP bar-by-bar through the session. Each newly-closed bar contributes its typical price $tp = (High + Low + Close) / 3$, weighted by tick volume v :

$$\begin{aligned} VWAP &= \frac{\sum(tp \cdot v)}{\sum v} & tp &= (H + L + C) / 3, \quad v = \text{tick volume} \\ STD &= \sqrt{\frac{\sum(tp^2 \cdot v)}{\sum v} - VWAP^2} & & \text{volume-weighted dispersion} \\ Upper &= VWAP + k \cdot STD & Lower &= VWAP - k \cdot STD & k &= \text{BandMult} \end{aligned}$$

VWAP is only trusted once at least `MinSessionBars` have accumulated in the current session — early in the day there is too little data for the average and its dispersion to be meaningful.

2. The Rejection Trigger

A band touch alone is *not* traded — over-stretched price can keep running. The EA requires a **rejection**: on the just-closed bar, price must poke through a band with a wick and then close back inside it, and that rejecting wick must dominate the bar's range. This is the snap-back footprint of supply or demand stepping in at the extreme.

- **SHORT setup** — the bar's **High** pierces the Upper band, the bar **closes back below** it, and the **upper wick** is at least `MinWickRatio` of the bar's total range. The EA sells the rejection.
- **LONG setup** — the bar's **Low** pierces the Lower band, the bar **closes back above** it, and the **lower wick** is at least `MinWickRatio` of the bar's total range. The EA buys the rejection.

3. Stop Loss & Take Profit

Risk is taken straight from the candle that produced the signal — there is no fixed pip stop:

- **Stop loss** — placed just beyond the rejection wick extreme, plus a small cushion: `StopBufferPoints` beyond the rejected high (short) or low (long). If the band fails to hold, the trade is wrong and is closed.
- **Take profit** — set at **VWAP** itself, the fair-value magnet the strategy is fading toward.

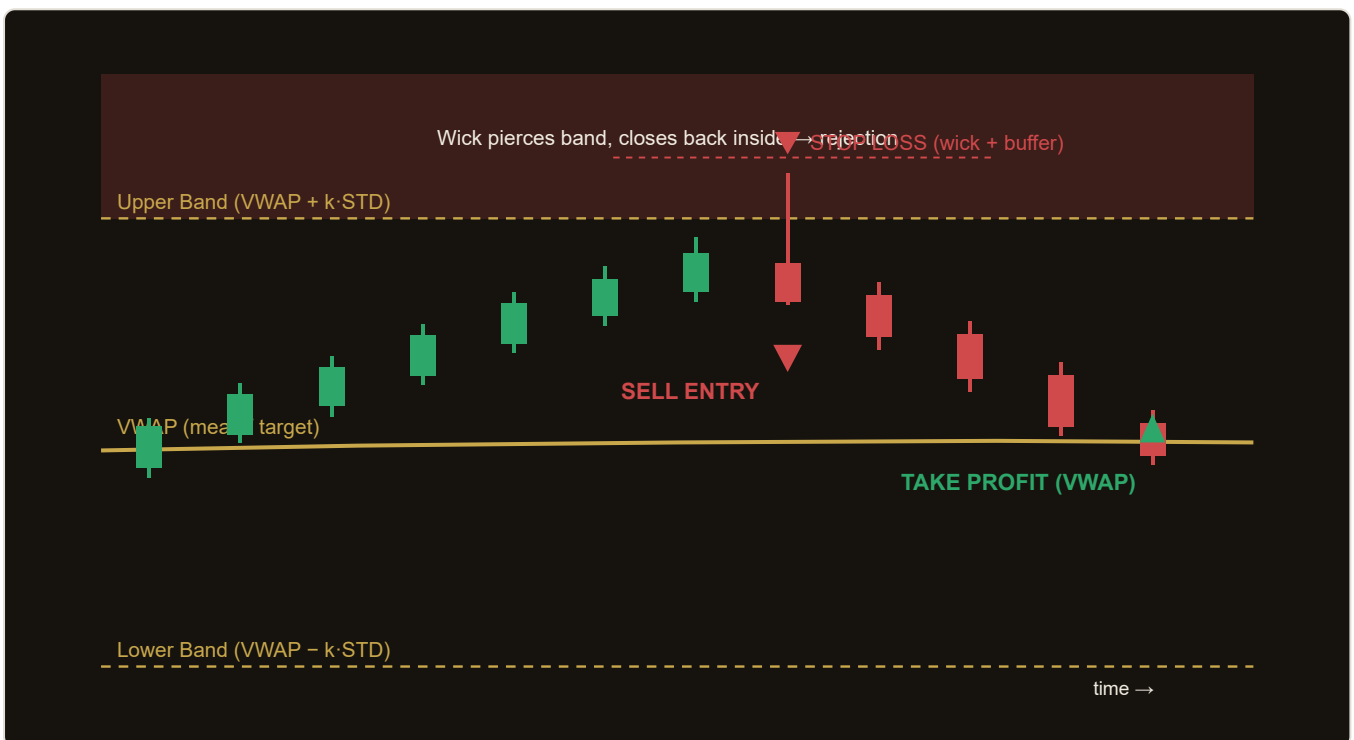
4. Trade Filters

- **Minimum reward:risk** — the distance to VWAP (reward) must be at least `MinRewardRisk` times the wick-stop distance (risk). Setups where price has already drifted too close to VWAP are rejected.
- **Spread guard** — new entries are skipped when the current spread exceeds `MaxSpreadPoints`.
- **One position per magic** — only a single position is held at a time; the wick stop and VWAP target manage every exit. No averaging, no grid.

Note: The strategy reads only the primary chart's timeframe and symbol, so it runs on whatever timeframe is selected at backtest or attach time. Its natural home is a liquid intraday market with a real session — an FX major or an index such as **EURUSD** or **US500** on **M5–M15**.

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. Price drifts up to the Upper band, a bar pokes through with a dominant upper wick and closes back inside (the rejection), the EA sells, and price reverts toward VWAP where the target rests.



Illustrative example only. Actual market behaviour varies.

Parameters

| Parameter | Default | Description |
|------------------|---------|---|
| BandMult | 2.0 | Band width as a multiple of the volume-weighted standard deviation about VWAP. Range 1.0–4.0, step 0.1. |
| MinWickRatio | 0.5 | The rejection wick (poking through the band) must be at least this fraction of the signal bar's total range to qualify as a genuine reversal. Range 0.2–0.8, step 0.05. |
| StopBufferPoints | 100 | Extra cushion (in points) placed beyond the rejection wick for the stop loss. Range 10–600, step 10. |
| MinSessionBars | 10 | Bars that must accumulate in the current session before VWAP is trusted. Range 3–60, step 1. |
| MinRewardRisk | 1.0 | Reject setups whose VWAP target is closer than this multiple of the wick-stop distance. Range 0.3–4.0, step 0.1. |
| MaxSpreadPoints | 80 | Skip new entries when the current spread (points) is wider than this. Range 5–400, step 5. |
| Lots | 0.10 | Order volume in lots. Range 0.01–1.0, step 0.05. |
| Magic | 4412 | Magic number used to tag and track this EA's positions. Range 0–9,999,999, step 1. |

Recommended Settings

The defaults are a balanced starting point for a liquid intraday market. Tune around them on your own data before any live use.

SYMBOL & TIMEFRAME

- **Symbol:** a liquid instrument with a genuine session — an FX major (e.g. EURUSD) or an index such as US500.
- **Timeframe:** M5 to M15, where intraday VWAP behaves as a meaningful benchmark.

TUNING GUIDANCE

- **BandMult** — higher values (2.5–3.0) demand a deeper over-stretch and produce fewer, higher-conviction rejections; lower values trade more often but with weaker edges.

- **MinWickRatio** — raising it (e.g. 0.6) insists on a more dominant rejection wick, filtering marginal bars at the cost of frequency.
- **MinRewardRisk** — keep at or above 1.0 so the VWAP target is never closer than the wick-stop distance.
- **MaxSpreadPoints** — set to suit your broker; widen for indices, tighten for tight-spread FX majors.

Example — a short rejection

Price rallies into the Upper band. The next bar's high pierces the band but it closes back below, leaving an upper wick worth 60% of the bar's range (\geq MinWickRatio 0.5). VWAP sits well below entry, so reward:risk clears 1.0. The EA sells at the bid, stops just above the rejected high (+ StopBufferPoints), and targets VWAP — taking profit as price reverts to fair value.

Tip: Because the stop is anchored to the rejection wick rather than a fixed pip count, the effective risk per trade varies with the size of the signal bar. Size **Lots** conservatively and review the per-trade stop distance during optimization rather than assuming a constant risk.

How to Install on MetaTrader 5

- 1 Copy `SessionVwapRejectionReversal.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

Before going live: Always validate `SessionVwapRejectionReversal` in the MT5 Strategy Tester and on a demo account first. Confirm the VWAP session reset aligns with your broker's server time and that spread/commission costs are modelled realistically.

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.