

M C P S E R V E R

N O C O D E

C L O U D H O S T E D

Barrel Filling Logistics MCP

Coordinate your wine cellar operations and barrel inventory.

Barrel Filling Logistics MCP handles the math and scheduling for your wine cellar. It helps you pick the right barrels from your inventory, calculates the resources you need for a fill, and builds work schedules for your staff while making sure you don't exceed your physical cellar capacity.

A+ Quality Score 100/100

wine

logistics

inventory

cellar

planning



The connectivity layer between AI and the world's software.

Vinkius sits between AI and every application. All communication passes through Vinkius Cloud via the Model Context Protocol (MCP) — with governance, observability, and security at every layer.

Your AI Connections Run Through Vinkius Cloud

The world's largest
managed MCP catalog

Vinkius is the connectivity layer where AI connects to the software your business already runs. We handle the hosting, the security, the credentials, the uptime — you get agents that actually do things.

We operate the world's largest managed MCP catalog. Major SaaS platforms, CRMs, databases, and cloud providers — running, monitored, production-ready. This MCP server is hosted and maintained by the Vinkius Cloud for AI Agents.

The agent doesn't manage credentials, doesn't manage uptime, doesn't manage security. Vinkius does.

— Architecture principle

Four Pillars of the Vinkius Runtime

01 — Security by design

Credentials stay encrypted at rest via AES-256. The AI agent never touches raw keys — they're injected into a sandboxed V8 isolate at runtime. Actions are logged, and connections have an emergency kill switch.

03 — Deterministic observability

Eight immutable metrics per endpoint: request volume, p95 latency, error rate, active connections, cost attribution. A live payload feed logs every tool call with mutation detection.

02 — Built on MCP Fusion

This MCP server was built with **MCP Fusion**, the open-source framework (Apache 2.0) that powers the entire Vinkius catalog. Schema-as-firewall strips undeclared fields, compiled PII redaction runs at zero overhead, and cryptographic lockfiles produce git-diffable audit trails.

04 — Autonomous operations

Servers are deployed, monitored, and patched autonomously. New capabilities and security patches ship weekly. Zero-downtime deployments ensure continuous availability across all managed MCP servers.

AES-256

Encryption at rest

Ed25519

PKI vault signatures

24h TTL

Ephemeral session keys

V8 Isolate

Sandboxed execution

One Token. Instant Access.

Every MCP server on Vinkius is accessed through a **Connection Token**. Tokens are generated in the cloud dashboard and produce a unique MCP endpoint URL. Paste this URL into any MCP-compatible client — no SDK required.

A single token can serve **multiple AI clients simultaneously**, or you can issue separate tokens per client for granular access control. Each token tracks its own request count, last activity timestamp, and can be individually enabled or revoked.

MCP ENDPOINT`https://edge.vinkius.com/{token}/mcp`

Claude



Cursor



VS Code



Windsurf



Grok



Gemini

Security Is the Architecture

Security in Vinkius is not a feature — it's the foundation of the runtime. The gateway enforces multiple independent protection layers between AI agents and third-party APIs.

01 — Ed25519 PKI Vault

Every workspace has an Ed25519 Master Key. Session keys are generated ephemerally (24h TTL) and signed by the Master Key. Credentials never leave the vault boundary.

02 — V8 Isolate Sandboxing

Tool code runs inside isolated-vm V8 isolates with 64 MB memory caps and per-request timeouts. No filesystem access, no network access except through the SSRF-guarded fetch bridge.

03 — SSRF Guard

All outbound HTTP requests are DNS-resolved and validated before execution. Private IP ranges (10.x, 172.16-31.x, 192.168.x, AWS metadata 169.254.x) are blocked at the network layer.

05 — Cryptographic Audit Trail

Every request is signed into a SHA-256 hash chain with Ed25519 signatures. Events form a tamper-proof, SIEM-exportable forensic record.

04 — DLP & PII Redaction

A ResponseGuard pipeline intercepts every tool response. Configurable redaction patterns strip sensitive fields (emails, SSNs, card numbers) before data reaches the AI agent.

06 — Honeypot Trap System

Phantom credentials are injected into isolated environments. If a honeypot is used outside Vinkius infrastructure, the server is quarantined instantly.

Emergency Kill Switch

EU AI Act Art. 14(1)
Compliant

The kill switch is an **emergency halt** mechanism — not a simple toggle. When triggered, it executes three actions atomically:

01 — Server deactivated

The MCP server is immediately taken offline across the entire cluster.

02 — All tokens revoked

Every connection token is invalidated. Total lockout — reconnection blocked until new tokens are issued.

03 — WebSocket connections killed

Active connections terminated via Redis pubsub broadcast. Propagates to every runtime node in the cluster.

Full Visibility. Zero Guesswork.

The Vinkius cloud dashboard includes a full MCP Governance suite — real-time analytics and security controls for production AI operations.

Control Plane

KPI dashboard with request volume, latency, success rate, token consumption, and AI-generated operational briefings.

FinOps

Cost tracking per tool, payload compression savings, budget optimization signals, and consumption trends.

Firewall & DLP

PII redaction activity, sensitive data protection counters, and security event timeline.

Agent Activity

Which AI clients are connecting, how often, and what they're doing — real-time session tracking.

Tool Health

Slowest and most error-prone tools, with actionable root-cause insights and performance baselines.

Incident Log

Error trends, failure rates, status-code breakdowns, and forensic audit trail access.

Get started at cloud.vinkius.com — connect your AI agent in under 60 seconds.

Barrel Filling Logistics MCP

4 tools available

Cloud-hosted on Vinkius

Managing a wine cellar involves constant adjustments to volume, container availability, and floor space. This MCP takes those variables and turns them into a clear plan. Instead of manually checking barrel ages or calculating fill levels, you can ask your AI client to handle the heavy lifting. You can determine exactly how many resources are required for a specific volume, select barrels that respect your lot segregation requirements, and generate a daily schedule for your cellar team. It also acts as a safeguard by checking your planned volume against your actual cellar layout to prevent overfilling or overcrowding. It's built to keep your distribution and filling processes organized without the manual spreadsheet work.

Core Capabilities

01 — Resource Calculation

The AI calculates the exact amount of equipment and containers needed for a fill.

02 — Inventory Optimization

Your agent selects specific barrels from stock to meet volume targets.

03 — Staff Scheduling

The AI builds time-based work plans for cellar personnel.

04 — Capacity Validation

The tool checks your planned operations against physical cellar constraints.

05 — Lot Segregation

The AI ensures barrel selection respects your specific lot requirements.

One Click on Vinkius — From Prompt to Execution

Available at vinkius.com/en/ai-agent-connect/barrel-filling-logistics — connect your AI agent in three steps.

- 01 Connect your preferred MCP client to Vinkius.
- 02 Ask your AI client to calculate requirements or select barrels.
- 03 The AI uses the specific tools to process your cellar data.
- 04 Receive a finished schedule or capacity report in your chat interface.

Connect your AI client to Vinkius to start managing your cellar logistics immediately.

Built For

This MCP is designed for professionals managing large scale wine production and cellar logistics.

Cellar Manager

Hands off inventory counts and scheduling tasks to the AI.

Winemaker

Uses the tool to plan volume requirements and barrel selection for specific lots.

Logistics Coordinator

Relies on the AI to validate cellar capacity and staff schedules.

What Changes When You Connect

- | | |
|----|---|
| 01 | Reduces manual math for filling requirements. |
| 02 | Prevents overfilling by validating cellar capacity. |
| 03 | Maintains lot integrity during barrel selection. |
| 04 | Provides clear daily work plans for cellar staff. |

Real-World Applications

Volume Planning

Calculate how many barrels to pull from inventory for a specific wine volume.

Space Management

Verify that a planned wine volume will fit in the current cellar layout.

Staff Management

Generate a daily task list for cellar workers to follow during filling windows.

Inventory Selection

Pick barrels based on age or specific lot requirements to meet production goals.

4 Tools Available

#	TOOL	DESCRIPTION
01	calculate_filling_requirements	This tool calculates the specific resources you need to complete a planned filling operation.
02	generate_filling_schedule	Use this to create a timed work plan for your cellar staff to follow during filling tasks.
03	optimize_barrel_selection	This tool picks the best barrels from your current inventory based on volume needs and lot segregation rules.
04	validate_cellar_capacity	This tool checks if your planned wine volume actually fits within your current cellar layout.

See It in Action

Real prompts you can use once this MCP is connected to your AI agent through Vinkius Cloud.

U How many barrels do I need for 5000 liters of wine at 95% fill?



You will need 11 barrels to accommodate 5000 liters at a 95% fill level.

U Find the best barrels for 2000 liters of wine, preferring barrels that are 5 years old.



The system has selected 4 barrels with an age of 5 years, providing a total capacity of 2100 liters.

U Create a filling schedule for these barrel IDs: B001, B002, B003 with a daily capacity of 500 liters.



The filling operation will take 2 days. Day 1: B001 and B002. Day 2: B003.

Frequently Asked Questions

01 How does this MCP help with barrel selection?

It selects the most appropriate barrels from your inventory to meet volume needs while respecting lot segregation.

02 Can I use this with Claude or Cursor?

Yes, this MCP is compatible with any MCP-compatible client including Claude, Cursor, and Windsurf.

03 Will it prevent me from overfilling my cellar?

Yes, the `validate_cellar_capacity` tool checks if your planned volume fits within your physical cellar layout.

04 How are staff schedules created?

The `generate_filling_schedule` tool creates a time-based plan for your cellar staff to follow.

05 Do I need to host this myself?

No, Vinkius hosts and manages the MCP so it is ready to use as soon as you connect your client.

06 How do I know how many barrels I need?

You can use the ``calculate_filling_requirements`` tool by providing the total wine volume and your target fill percentage.

07 Can I prioritize specific barrel ages?

Yes, the ``optimize_barrel_selection`` tool allows you to specify a preferred barrel age to help with lot segregation.

08 How can I ensure my plan fits in the cellar?

Use the ``validate_cellar_capacity`` tool to check if your proposed volume exceeds the capacity of a specific cellar zone.

Go Live in 60 Seconds

Get your connection token from cloud.vinkius.com, then paste the endpoint URL into any MCP-compatible client.

YOUR MCP ENDPOINT

`https://edge.vinkius.com/[TOKEN]/mcp`

CLIENT	WHERE TO CONFIGURE
 Claude AI	Profile → Customize → Connectors → "+" → Add custom connector → Paste endpoint
 Cursor	Settings → Features → MCP Servers → "+" Add New MCP Server" → Type: SSE → Paste endpoint
 VS Code	Ctrl/Cmd+Shift+P → "MCP: Add Server" → add <code>"barrel-filling-logistics": { "url": "..." }</code>
 Windsurf	MCP Settings → <code>mcp_settings.json</code> → Add endpoint URL
 ChatGPT	Settings → Tools & plugins → Add MCP server → Paste endpoint
 Gemini	Extensions → Add MCP Server → Paste endpoint URL

ASK AN AI
ABOUT THIS

Let your preferred AI
explain this MCP server

-  Ask ChatGPT 
-  Ask Claude 
-  Ask Perplexity 
-  Ask Gemini 
-  Ask Grok 

READY TO CONNECT

Barrel Filling Logistics is live on Vinkius Cloud.

Get your connection token, paste it into your AI agent, and
start building. No SDK. No deployment. Just results.

Start at cloud.vinkius.com →

vinkius.com · support@vinkius.com

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DOCUMENT INFORMATION

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MCP Server	Barrel Filling Logistics MCP
Server ID	01a0ac6c-0987-71d7-b63a-2954fa42d33c
Platform	Vinkius Cloud for AI Agents
Endpoint	https://edge.vinkius.com/{token}/mcp

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