

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

Laundry Water Usage Calculator MCP

Track and reduce water consumption for laundry operations.

Laundry Water Usage Calculator MCP gives your AI client the ability to calculate water consumption across different machine tiers. You can determine total volume for specific loads, check efficiency profiles for standard or industrial equipment, and run comparisons to see how much water you save by upgrading your hardware.

A+ Quality Score 100/100

laundry

water-usage

efficiency

sustainability

calculator



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.

Laundry Water Usage Calculator MCP

4 tools available

Cloud-hosted on Vinkius

Managing water usage in laundry operations requires precise data. This MCP gives your AI agent the specific math tools needed to handle those calculations. Instead of guessing how much water a set of industrial machines uses, you can get exact volumes based on load counts and machine efficiency tiers. You can use it to model different scenarios, such as how much water you'd save if you swapped out old standard machines for high-efficiency models. It's built to handle everything from simple residential-style load counts to heavy-duty industrial profiles, making it a practical tool for anyone managing facility resources or sustainability metrics.

Core Capabilities

01 — Volume Calculation

Your agent calculates exact water totals for any number of laundry loads.

02 — Efficiency Profiling

The AI retrieves standard water usage rates for different machine categories.

03 — Tier Comparison

Your agent compares water savings between different equipment levels.

04 — Usage Prediction

The AI estimates future water needs based on machine tiers and load counts.

One Click on Vinkius — From Prompt to Execution

Available at vinkius.com/en/ai-agent-connect/laundry-water-usage-calculator — connect your AI agent in three steps.

- 01 Connect your preferred MCP-compatible client to Vinkius.
- 02 Ask your AI agent to calculate water usage or compare machine tiers.
- 03 The agent calls the specific tool from this MCP.
- 04 The agent provides you with the calculated water volumes or savings.

Connect your AI client to Vinkius to start running water usage calculations immediately.

Built For

This MCP is for professionals managing water resources in laundry or textile environments.

Facility Managers

They hand off equipment upgrade calculations to their AI agent.

Sustainability Officers

They use the AI to model water reduction targets.

Laundry Operators

They use the AI to estimate daily or weekly water requirements.

What Changes When You Connect

- 01

Calculates exact water volumes for specific machine tiers.
- 02

Compares water savings between different equipment models.
- 03

Provides standard usage rates for industrial and high-efficiency machines.

Real-World Applications

Equipment Upgrades

Compare the water savings of moving from standard to high-efficiency machines.

Resource Planning

Estimate total water needs for a set number of laundry loads.

Sustainability Reporting

Model how different machine tiers impact total water consumption.

Operational Budgeting

Predict water usage based on specific machine efficiency profiles.

Patterns to Avoid

Guessing water savings

❌ AVOID

You tell your agent to estimate how much water you'll save by upgrading machines without any specific data.

✓ INSTEAD

Use ``compare_machine_impact`` to get a real comparison between specific machine tiers.

Using generic usage rates

❌ AVOID

You assume every industrial machine uses the same amount of water per load.

✓ INSTEAD

Run ``get_machine_efficiency_profile`` to pull the actual standard usage rates for your specific machine category.

Rough load estimations

❌ AVOID

You try to calculate your monthly water bill by eyeballing your laundry volume.

✓ INSTEAD

Use ``calculate_total_water_usage`` to get an exact volume based on your actual load counts.

The Right Fit

Connect this MCP if you manage facility resources or sustainability targets in laundry or textile environments. Do not connect it if you are looking for general plumbing advice or residential appliance manuals. The decision depends on whether you need to model water consumption based on specific machine efficiency tiers.



Laundry Water Usage Calculator 4 Tools

These tools handle the math for water consumption across different machine types and load volumes.

#	TOOL	DESCRIPTION
01	calculate_total_water_usage	This tool calculates the total water volume based on your specific number of loads and a set usage rate.
02	compare_machine_impact	Use this to see the difference in water savings when you switch between different machine tiers.
03	estimate_consumption_by_tier	This tool predicts total water consumption for a specific machine tier and a given number of loads.
04	get_machine_efficiency_profile	Get the standard water usage per load for specific machine types like high-efficiency, standard, or industrial.

See It in Action

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

U How much water will I use if I run 10 loads with a high efficiency machine?



With a high efficiency machine, 10 loads will consume 50 liters of water.

U How much water do I save if I switch from a standard machine to a high efficiency one for 20 loads?



Switching to a high efficiency machine will save you 40 liters of water over 20 loads.

U What is the water usage for an industrial machine per load?



An industrial machine typically uses 100 liters per load.

Frequently Asked Questions

01 What kind of machines can I calculate usage for?

The MCP includes profiles for high-efficiency, standard, and industrial machines.

02 Can I compare different machine types?

Yes, you can use the comparison tool to see the water savings when switching between machine tiers.

03 How do I use this with Claude or Cursor?

You connect your client to Vinkius once, and the tools become available to your agent in those apps.

04 Does this MCP require a separate installation?

No, Vinkius hosts the MCP, so you just connect your client and start using the tools.

05 Can I estimate usage for a specific number of loads?

Yes, the MCP has tools specifically designed to estimate consumption based on load counts and machine tiers.

06 How can I estimate my monthly water usage?

You can use ``estimate_consumption_by_tier`` by providing the number of loads you expect to run and the efficiency tier of your machine.

07 Can I compare different washing machines?

Yes, use ``compare_machine_impact`` to see how much water you would save by switching from your current machine tier to a more efficient one.

08 What machine tiers are supported?

The server supports high_efficiency, standard, and industrial machine tiers.

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>"laundry-water-usage-calculator": { "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

Laundry Water Usage Calculator 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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Platform	Vinkius Cloud for AI Agents
Endpoint	<code>https://edge.vinkius.com/{token}/mcp</code>

LICENSE & USAGE

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