MCP SERVER | NO CODE | CLOUD HOSTED

Luggage Volume Calculator MCP

Check if your bags meet airline size limits.

Luggage Volume Calculator MCP helps you calculate the exact three-dimensional volume of your bags. It handles metric and imperial measurements and checks your gear against specific airline capacity requirements to prevent unexpected fees at the airport.

A+ Quality Score 100/100

luggage | volume | travel-tools | dimensions | airline-compliance

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vinkius.com/en/ai-agent-connect/luggage-volume-calculator

SCAN TO VIEW

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.

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.

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.

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	Ed25519	24h TTL	V8 Isolate
Encryption at rest	PKI vault signatures	Ephemeral session keys	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.

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.

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.

06 — Honeytoken Trap System

Phantom credentials are injected into isolated environments. If a honeytoken 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.

Agent Activity

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

FinOps

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

Tool Health

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

Firewall & DLP

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

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.

Luggage Volume Calculator MCP

4 tools available
Cloud-hosted on Vinkius

Packing for a trip involves more than just fitting clothes into a suitcase. You need to know if your bag actually fits the strict volume constraints set by your airline. This MCP gives your AI client the ability to perform precise spatial calculations. You can input dimensions in centimeters or inches to find the total cubic volume. If you prefer working with capacity, you can convert those dimensions directly into liters. Once you have the volume, you can run a comparison against a specific limit to see if you are compliant. It takes the guesswork out of packing and helps you avoid overweight or oversized baggage penalties.

Core Capabilities

01 — Metric Calculations

Your agent uses this to find volume when you provide dimensions in centimeters.

02 — Imperial Calculations

Your agent uses this to find volume when you provide dimensions in inches.

03 — Liter Conversion

Your agent uses this to turn physical dimensions into a standard liter capacity.

04 — Compliance Checking

Your agent uses this to compare a bag's volume against an airline's maximum limit.

One Click on Vinkius — From Prompt to Execution

Available at **vinkius.com/en/ai-agent-connect/luggage-volume-calculator** — connect your AI agent in three steps.

01 Connect the MCP to your preferred client like Claude or Cursor via Vinkius.

02 Provide the dimensions of your luggage to your agent.

03 Specify if you want the result in cubic centimeters, cubic inches, or liters.

04 Ask the agent to compare the result against a known airline limit.

Connect the MCP to your AI client and start asking for calculations.

Built For

This is for anyone managing luggage logistics for travel or shipping.

Frequent Travelers

They use the agent to verify bag sizes before heading to the airport.

Travel Agents

They use the agent to advise clients on baggage restrictions for specific flights.

Logistics Coordinators

They use the agent to calculate volume for equipment or cargo containers.

What Changes When You Connect

01	Avoids airline oversized baggage fees.
02	Handles both metric and imperial units.
03	Provides direct liter capacity conversions.
04	Automates volume math for complex dimensions.

Real-World Applications

Pre-flight Bag Check

You check if your carry-on fits the airline's volume limit before you leave for the airport.

Packing Optimization

You calculate the total liters of your gear to see if it will fit in a specific backpack.

Shipping Estimates

You determine the cubic volume of a box to prepare for shipping costs.

Equipment Management

You verify that specialized gear cases stay within specific dimensional constraints.

Patterns to Avoid

Guessing volume from visual estimates

AVOID

You tell your agent that a bag looks big enough for a three-day trip without providing any actual measurements.

✓ INSTEAD

Provide specific measurements to get an accurate result using get_volume_by_metric_dimensions or get_volume_by_imperial_dimensions.

Ignoring airline volume limits

AVOID

You calculate the volume of your suitcase but don't check if it actually meets the airline's specific rules.

✓ INSTEAD

Use compare_to_limit to see if your bag stays under the allowed threshold.

The Right Fit

Connect this MCP if you frequently manage luggage dimensions for travel or shipping. If you don't need to calculate cubic volume or check airline compliance, you don't need this tool.

Luggage Volume Calculator 4 Tools

These tools handle spatial math, unit conversions, and airline compliance checks.

#	TOOL	DESCRIPTION
01	`get_volume_by_metric_dimensions`	Calculates luggage volume using centimeters. It returns the result in cubic centimeters.
02	`get_volume_by_imperial_dimensions`	Calculates luggage volume using inches. It returns the result in cubic inches.
03	`get_volume_in_liters`	Converts metric dimensions into a liter capacity measurement.
04	`compare_to_limit`	Checks if a bag's volume exceeds a specific threshold. It tells you if you are within the allowed limit.

See It in Action

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

U What is the volume of a bag that is 50cm x 30cm x 20cm?

The volume of the bag is 30,000 cm3.

U Convert a 20×15×10 inch bag to cubic inches.

The volume of the bag is 3,000 in3.

U Is a 45 liter bag within a 50 liter limit?

Yes, the bag is within the limit.

Frequently Asked Questions

01 **How do I use this MCP with Claude?**

You connect to the MCP through the Vinkius platform. Once connected, your agent in Claude can immediately use the volume calculation tools.

02 **Can I calculate volume in inches?**

Yes. Use the get_volume_by_imperial_dimensions tool to calculate volume using inches.

03 **Does this help with airline restrictions?**

Yes. You can use the compare_to_limit tool to see if your bag's volume stays under a specific airline threshold.

04 **Can I get the volume in liters?**

Yes. The get_volume_in_liters tool converts metric dimensions into liters.

05 **Do I need to install anything on my computer?**

No. Vinkius hosts the MCP, so you just connect your client and it works.

06 **What units are supported?**

The server supports both metric (centimeters) and imperial (inches) units for dimension inputs.

07 **Can I check if my bag is too big for an airline?**

Yes, you can use the `compare_to_limit` tool to check your calculated volume against an airline's maximum allowed volume.

08 **How do I get the volume in liters?**

You can use the `get_volume_in_liters` tool by providing the length, width, and height in centimeters.

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 `"luggage-volume-calculator": { "url": "…" }`
Windsurf	MCP Settings → `mcp_settings.json` → 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

Luggage Volume 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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Endpoint	`https://edge.vinkius.com/{token}/mcp`

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