**Technical specifications**

**Vertamill** | **Gicamill** | **Macbormill** | **Promill**
---|---|---|---
**Table**
- Table Width: 1 to 3 m | 3 to 10 m+ | 4 to 8 m
- Table length: 3 to 7 m | 4 m and up
- Load capacity: 3 to 5 t/m² | 3 to 15 t/m²
**Working capacity**
- Distance between columns: 1.5 to 3.5 m | 3.5 to 10 m | 4.5 to 10 m
- Clearance from spindle to tabletop: up to 2.5 m | up to 3.5 m | up to 5.5 m
**Travel**
- X: 4 – 8 m | 4 – 30 m
- Y: up to 4 m | up to 10 m
- Z: 1 – 2.5 m | 1 – 3.5 m | 1 – 2.5 m
- W: 1 – 3 m
- C-axis (integrated in the ram): Indexing
  - Continuous ±/200 deg, ±/400 deg
**Feeds**
- Linear axes (X-Y-Z): 10 – 40 m/min
- Moving crossrail (W): 2 – 5 m/min
**Machine tools**
- Mechanically driven (S1)
  - Power: 40 – 100 kW / Torque: 1000 – 5000 Nm / Speed: 2000 – 6000 rpm
  - Attachments: BV (Vertical), RE (Right angle), RU (Universal 3+2), URC (5-axes)
- Direct drive (S1)
  - Power: 40 – 150 kW / Torque: 60 – 1000 Nm / Speed: 2000 – 15,000 rpm
  - 5-axis milling heads HS3 (high speed), HS4 (hybrid), HS5 (heavy duty)
- Taper: ISO / CAT / BT 50; HSK 63 / 100 / 125
- Control: FANUC or Siemens

**Accessories and Other Equipment**
- Heads and Tools
- Robotic Solutions
- Cooling and Fumes
- Control and Safety
- Services
- Software and IT

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**Liné Machines Portal/Gantry Mills**

**Universal Machining Centers**

Customized solutions to maximize your operational performance

Whether you work on similar parts or a large variety of sizes and materials, Fives will design a unique machining center combining proven modules and custom-built components to meet your quality and performance goals.

- **Industry**: Mining, shipbuilding, power generation, rail, aerospace, general/heavy-duty machining
- **Application**: High precision machining, milling/turning
- **Material**: Aluminum, composite, Inconel, invar, steel, titanium

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State-of-the-art machines for today’s demanding applications

Liné Machines GICAMILL
The one-piece bed/worktable sections of the Liné Machines Gicamill achieve a compact machine footprint while maintaining accuracy between the spindle and the worktable.

Liné Machines MACBORMILL
The Liné Machines Macbormill consists of a worktable (floorplate) independent from the two beds that support the structure of the gantry.

Liné Machines VERTAMILL
The moving worktable on the Liné Machines Vertamill allows the spindle to remain in the same position for exceptional machine monitoring.

Liné Machines PROMILL
Similar to the Macbormill with a worktable independent from the two beds that support the structure of the gantry, the Liné Machines Promill features a working crossrail. The additional programmable axis is used to position the crossrail in a continuous motion, offering a greater vertical range.

Serving heavy equipment industries worldwide, Liné Machines gantry mills meet the most exacting machining requirements with regards to capacity, sturdiness and flexibility.

All major machine components are designed and built in-house by our team of experienced engineers and technicians for rigorous quality control and meticulous finishing. We select top-quality materials to guarantee durability and a stable, deflection-proof platform.

Head, Automation & Tooling Options

Liné Machines gantry mills also offer machining and process versatility with optional accessories and configurations. Moving large parts can have significant throughput and accuracy implications. Multi-functional features such as milling heads, mill/turn and automation/pallet systems allow manufacturers to do more in a single setup.

The exclusive HSS5 head combines milling spindle and turning tool holder to ensure high productivity and improved cycle time as you can switch from turning to milling operations without changing the head. In milling mode, it allows 105 kW, 10,000 rpm and 1,000 Nm.

The wide choice of milling heads + the ability to customize upon request to achieve complex and demanding machining tasks = a broad potential for numerous applications. Multiple attachments and effectors can be stored in racks or head magazines for rapid change-outs.

The rotary table can be positioned to combine milling and turning operations. The optimized hydrostatic support of the table ensures sustainable performance and the high-precision measuring systems provide accurate positioning.

The rotary table can range in size from 2 to 8 meters. Automatic changers can store turning/milling heads as well as effectors.

The wide choice of milling heads + the ability to customize upon request = a broad potential for numerous applications. Multiple attachments and effectors can be stored in racks or head magazines for rapid change-outs.

To further enhance flexibility and reduce non-machining time, the machine may be configured with dual-zone machining areas or with a shuttle/pallet system (FMS).

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Head changer

Other models available; customized on request.

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- **Application:** High precision machining, milling/turning
- **Material:** Aluminum, composite, Inconel, Invar, steel, titanium

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### Working capacity

- **Distance between columns:**
  - Gicamill: 1.5 to 3.5 m
  - Macbormill: 3.5 to 10 m
  - Promill: 4.5 to 10 m

- **Clearance from spindle to tabletop:**
  - Gicamill: up to 2.5 m
  - Macbormill: up to 3.5 m
  - Promill: up to 5.5 m

### Speed

- **X:**
  - Gicamill: 4 – 8 m
  - Macbormill: 4 – 30 m

- **Y:**
  - Gicamill: up to 4 m
  - Macbormill: up to 10 m

- **Z:**
  - Gicamill: 1 – 2.5 m
  - Macbormill: 1 – 3.5 m
  - Promill: 1 – 2.5 m

- **W:**
  - Gicamill: 1 – 3 m

- **C-axis (integrated in the ram):**
  - Gicamill: Indexing Continuous +/-200 deg; +/-400 deg

### Feeds

- **Linear axes (X-Y-Z):**
  - Gicamill: 10 – 40 m/min
  - Macbormill: 2 – 5 m/min

### Accessories and Other Equipment

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