

RhinoLaserGRBL

COMPATIBILITY GUIDE

Supported platforms, controller families and current limitations

Version 1.0.1 | Rhino 8 for Windows

Design -> Prepare -> Preview -> Send -> Machine

1. Supported host platform

Component	Support
Rhino	Rhino 8
Operating system	Windows
Package	rh8_0-win Yak package; .NET Framework 4.8 and .NET 7 targets included
Transport	USB / serial

2. Controller compatibility

Controller family	Current status	Notes
GRBL 1.1 / 1.1f	Primary tested target	Direct GRBL 1.1 driver; physically validated target family.
grblHAL	Detected / compatible path	Detected from banner/build data; broader physical-machine validation still required.
FluidNC	Detected / compatible path	Detected from banner/build data; broader physical-machine validation still required.
Unknown GRBL-compatible endpoint	Conservative compatible mode	Used when realtime/protocol evidence is sufficient but exact firmware family is not proven.
Marlin laser mode	Not claimed	Requires dedicated validation/driver work.
Smoothieware	Not claimed	Requires dedicated validation/driver work.
Ruida / Trocen / proprietary DSP	Not supported in 1.0.1	Different control architecture; dedicated driver work required.

3. Detection behavior

- Startup banner may be used when available.
- Realtime ? status is used for GRBL-compatible protocol evidence.
- \$I build information is read-only and may be retried while USB serial settles.

- Controller detection does not automatically move, home, fire the laser, reset, unlock or change persistent settings.

4. Machine configuration assumptions

- Workspace dimensions must match the machine you intend to use.
- Manual-origin mode supports machines without homing switches, but the operator must re-establish origin after lost position.
- Homing mode assumes the controller and physical switches are already configured correctly.
- Max S must match the controller power scale used by the machine profile.

5. Current limitations

- Windows / Rhino 8 is the release target.
- Network/Wi-Fi transport is not enabled.
- Live head position depends on valid GRBL status and a valid work reference.
- Very dense vector/raster jobs may require simplification or less raster detail for best performance.
- CNC spindle, pocket, drilling and general Z-axis machining functions are intentionally not implemented.

6. Recommended compatibility test

1. Install the 15-day trial.
2. Create/load a machine profile matching the physical machine.
3. Connect to the correct COM port and verify controller detection.
4. Establish a valid origin.
5. Test jog at low distance/feed.
6. Use FRAME on a small test job.
7. Run a low-risk material test before production work.

Compatibility questions: grbl@osbase.com.br