



KS490V 4" x 90" Heavy Duty Belt Grinder with Vacuum Base

Production-grade edge prep for manufacturing, welding, and fabrication shops

Executive summary

In a fabrication shop, grinding is not a “final touch” — it’s a production step that affects fit-up time, weld quality, part consistency, and operator safety. The Kalamazoo KS490V is built as a heavy-duty 4" x 90" belt grinder with an integrated vacuum base to remove metal fast while keeping dust and debris under better control.

With a direct-drive system, 6900 SFPM belt speed, spring belt tension with quick-release, and a head that adjusts from horizontal to vertical, the KS490V is designed to support repeatable edge prep in high-throughput welding and fabrication workflows.



Why belt grinding matters in welding and fabrication

Most shops feel pressure in three places:

- **Throughput:** Edge prep and deburring can become a bottleneck after laser/plasma cutting, drilling, punching, or sawing.
- **Consistency:** Different operators can produce different bevels, corner radii, and finishes — which shows up later during fit-up and inspection.
- **Safety & housekeeping:** Grinding dust and debris build up around stations, increasing cleanup time and creating an air-quality issue.

A production belt grinder helps standardize edge prep across operators and supports repeatable, controlled material removal compared to relying on handheld grinding alone.

KS490V overview

The KS490V is a heavy-duty production belt grinder using a 4" x 90" abrasive belt, designed for efficient grinding and finishing—especially on larger workpieces. A defining



advantage is its built-in vacuum base, which helps capture dust and debris during grinding to support a cleaner workstation.

This is especially relevant for:

- Welding/fabrication shops aiming to reduce cleanup time
- Contract manufacturing and repeat part prep
- Shops supporting automation/robotic welding where consistent edge prep improves process stability

Engineering details that matter on the floor

These are the KS490V design features that directly translate into productivity and repeatability:

High-speed belt platform

- Belt size: 4" x 90"
- Belt speed: 6900 SFPM for aggressive stock removal and production grinding

Work contact components built for production grinding

- Platen: Steel, reversible and replaceable, 24-1/2" long
- Contact wheel: 8" OD x 4" wide, serrated 70 duro, sealed ball bearings

Quick-change and repeatability helpers

- Spring belt tension system with quick-release lever for fast belt changes
- Easy belt tracking adjustments for consistent alignment
- Hinged door on the grinder head for quick belt changes

Multi-position flexibility

- Adjustable grinder head supports horizontal to vertical operation plus an adjustable head stop

Integrated vacuum base: dust control without extra complexity

Grinding stations tend to collect debris and airborne dust. The KS490V integrates the vacuum system into the steel base to help collect dust during operation.

Key vacuum-related details:

- Replaceable cloth filter (5X878) for dust collection
- Separate vacuum on/off switch with a 110V plug



This setup supports cleaner day-to-day operation and less time spent on cleanup around the grinding area.

Typical applications in welding and fabrication shops

The KS490V is commonly selected for tasks such as:

- Beveling edges before fit-up and welding
- Deburring sharp edges after cutting, drilling, or punching
- Squaring up ends on bar, tube, and small plate parts
- Rounding corners for safer handling and cleaner finished parts
- Flatwork cleanup on plates and brackets
- Contouring and shaping curved profiles
- Aggressive stock removal and repeat production grinding

Belt selection guidance for real shop workflows

The KS490V uses standard 4" x 90" belts and is compatible with common belt constructions (for example, aluminum oxide, zirconia, or ceramic, selected based on the material and removal rate required).

A practical belt plan for most fab shops:

- Coarse (36–60 grit): beveling, squaring, heavy edge prep
- Medium (80 grit): general deburring and blending
- Finer (100+ grit): finish improvement before paint/powder/assembly

Kalamazoo lists aluminum oxide belt options (50, 80, 100 grit) and offers an optional Variable Frequency Drive (VFD) for variable speed when needed.

Power and configuration options

The KS490V offers motor and power options to match shop electrical availability:

- **Motor options:** 2 HP (single-phase) or 3 HP (three-phase)
- **Electrical (amps):** 1PH 230V: 11.5A • 3PH 230V: 7.2A • 3PH 460V: 3.6A

This helps shops standardize on the same grinder platform even when facility power differs by location.

Shipping and footprint planning

For receiving and placement planning, Kalamazoo lists:



- Shipping dimensions: 48" (L) x 59" (W) x 56" (H)
- Shipping weight: 325 lb (subject to change)

Request a quote today

If you want consistent edge prep for welding and fabrication work — and a cleaner grinding station — the KS490V is built for production use.

Request a quote and specify: your primary material, typical part size, and facility voltage.

- Call: (269) 382-2050 or 800-592-2050
- Hours: Mon–Fri, 8:00 AM–4:30 PM (EST)
- **Get pricing & lead time:** kalamazooind.com