



What makes your Sutphen Chassis Extreme Duty?

Since 1968, our experience and focus on the fire service have driven Sutphen to build the industry's most Extreme Duty Chassis. Every inch of our custom chassis is built to withstand the most severe firefighting conditions.

Heavy Duty Exterior

- Sutphen Built Cab
 - 6061-T6 aluminum extrusion and 1/8"-3/16" 5052-H32 aluminum panels
 - Contoured cab front and roof for greater strength and rigidity
 - The under-cab substructure is a steel box tube design constructed with 5" structural I-beams joined to a 4" tube. The cab is mounted on isolators and the separate heavy-duty pivoting substructure for improved ride, stronger cab, and reduced sub-frame stress. The cab tilt frame cross brace has been implemented on all cabs to improve strength and stability
- 2-Man Cab option now available (in initial design process)
- Bumpers are constructed with a 1/4" thick steel reinforcement behind a 10 gauge stainless steel, 1/4" thick outer skin
- 14 gauge 304 Stainless Steel Polished Grill
- 14 gauge 304 Stainless Steel Polished Headlight Housing
- Cab fenders are polished stainless steel, and mounted spaced away from the cab side to avoid collection of dirt, debris, and moisture build-up. New cab fender hardware, steel w/black zinc nickel coating (1,000+ hours of salt spray testing)
- Single piece, forged Stainless Steel grab handles for exterior cab and bumper covers
- Large, full width egress cab steps. Aluminum, non-slip surface
- Air operated cab tilt safety latch
- New sealed single-piece cab side windows with heavy duty aluminum extrusions for additional corrosion protection
- New pressure tested cab tilt/lock hoses
- New Pyrotherm insulation sleeves for silicone hoses in high-temp areas

Heavy Duty Interior

- Stainless Steel Door panels
- Ample room for driver, officer, and crew with custom seating options
- Seat mounting allows for maximum visibility through the windshield
- Dual retractors, adjustable upper retractors (RiteHite) available for 500/550 Bostrom seats
- Easy access to service related items (ie: window regulators, dedicated radio power, 12-volt auxiliary fuses, circuit breaker panel, relays)
- Durable, urethane coated dash, switch console, and engine hood
- New Ametek gauges are individual, not cluster, for ease of repair if needed
- Tinted sun visors

- Extreme duty A/C system mounted low on the engine hood, and can withstand mounting of equipment such as handlights, etc. The A/C and heat system features multiple vents, heat and A/C to feet, and a defroster that covers the entire width of the cab
- New heat/AC features:
 - Hood mounted vent-to-face option available
 - New insulation for AC hoses under hood/engine area
 - New AC compressor manifolds (X12)
 - New crimped fitting AC hoses w/higher temperature ratings
 - New hood insulation (R&D in process)
 - New climate control decal
- Clean cab options
 - FRP board interior option
 - Washable/removable seat covers
 - Slideout cab compartments isolated from cab inside (optional for 73" cabs)
 - Cab "windows up" option for pump testing available

Superior Corrosion Protection

- Frame rails are treated with Cathacote 302H zinc rich primer, and a high quality chemical and solvent resistant top coat, for superior corrosion protection
- 304 Stainless Steel Fuel Tank
- FMCSA certified, coated with Corsol anti-corrosion solution and additional top coat
- New magni-coated 560 Grade 8 frame fasteners (1,000+ hour salt spray tested)

Electrical System

- Sutphen utilizes a point-to-point electrical system with color coded wiring labeled with function every 3". We use heat resistant loom and electrical connections terminate with Deutsch connections. We also use GXL high heat rated wiring
- Batteries, mounted in a vented 304 stainless steel box, removable aluminum protective cover, on a Dry Deck mounting bed
- Battery box redesign to improve serviceability
- New continuous power/ground cable
- Auxiliary Fuse Block, mounted under rear facing Officer seat box, with 6 battery outputs and 6 ignition outputs, 10 amp each / 80 amp maximum
- Kussmaul/IOTA Battery Charger/Conditioner/Pump, mounted under rear facing Driver seat box, and Shoreline/Auto Eject behind Driver door
- Power/ground studs standard for upper and lower command consoles, optional for Officer's seat box
- Breaker panel w/programmable load manager
- VIM box installed on floor instead of ceiling of Driver's seat box

Extreme Duty Frame Rail System

- Lifetime frame rail warranty
- Option for single, double, and Domex 110,000 psi frame rails
- All chassis frame rails are double thick at pump module and suspension mounting locations
- Frame rails, cross members, and suspension hangers are Huck Bolted for strength, and all serviceable items are fastened with Grade 8 bolts for ease of repair or replacement

Air Brake System

- Sutphen utilizes compression fittings instead of push to lock style. Compression fittings are able to withstand head and prevent air leaks better than push style
- Brake and electrical harnesses are coded, covered in high temperature loom, and secured within the frame rail, protecting them from debris and damage

Engine Air Cleaner System/Exhaust

- Air is pulled over the cooling package to provide direct flow
- Intake 48" above ground level to allow fording deep water
- System exceeds ISO 5011 standards for cleanliness and dirt holding capacity
- Fully wrapped stainless steel exhaust for reduced heat reduction
- New standard clutch fans to increase efficiency and reduce noise: 2-speed fan clutch for L9 engines; variable speed clutch for X12 & X15 engines

Front Suspension

- 54" long 4" wide two leaf parabolic spring suspension
- Ride Tech auxiliary spring system and Koni Shocks for superior ride
- Huck bolt installation
- Cast steel spring hangers
- New SteerTek front suspension option (in process of implementation)