



## CUSTOM CHASSIS



*When Lives Are In The Balance  
And Seconds Count*

# TESTED IN THE LAB.



E-ONE custom cabs are rigorously tested to ensure they are the strongest and exceed industry standards in the lab.

- Third-party frontal impact testing – over twice the SAE J2420 requirements
- Third-party static roof load testing – over five times SAE J2422 requirements
- Third-party roll-over testing to ensure effective timing and deployment of roll-over protection system
- Strain gauge testing to validate finite element analysis models and verify structural safety factors
- On-site tilt-table testing to validate electronic stability control requirements
- Third-party validated electrical load testing
- EMI testing to comply with SAE J551 radio frequency interference and electromagnetic interference requirements
- Third-party HVAC testing to ensure optimal performance
- On-site cab water leak testing
- Brake systems tested to Federal Motor Vehicle Safety Standard 121
- Engine installation testing to ensure cooling and after treatment meet engine manufacturers' requirements
- Driveline analyzed to ensure performance and durability
- Third-party independent front suspension testing to validate chassis load requirements
- Each unit road tested on varying terrains and speeds



# PROVEN IN THE FIELD

With more than 28,000 E-ONE custom chassis in active service worldwide, what really sets our chassis apart is the testing you put them through in the field. Every day our custom chassis are put to the test in departments throughout North America and in 40 countries across the world, operating in the most diverse terrains and harshest of climates. Year after year our chassis lives up to your demands with many E-ONE chassis in active service approaching 200,000 miles of hard labor. E-ONE chassis are proven beyond the lab - they're proven in the field by firefighters just like you.



## STRUCTURALLY SUPERIOR CABS

E-ONE offers four custom chassis - the Quest, Cyclone II, Typhoon and the Hush Mid-Engine. Each E-ONE cab is designed and built with a structural cage design to provide maximum protection and comfort for firefighters. Structural extrusions including sub-frames, a full flange wishbone frame rail, center uprights, and crossbeam extrusions are engineered for optimum performance. Horizontal and vertical supports handle severe vertical loads which can occur in accidents. The perimeter skin material is made of 3/16" aluminum-alloy sheet for added strength.

The only cab in the industry with a "built-in" roll cage. Vertical support extrusions are welded to the sub-frame and the main roof cross beam, providing superior protection in the event of an accident.



As an integral part of the custom chassis structural design, the cab's sub-frame is locked together in front by a C-channel extrusion, and reinforced by multiple cross members below the rear cab floor.

All-welded construction. No adhesives. No formed panels. No fiberglass nose.



E-ONE cabs are constructed with four-sided seamless extrusions interlocked and welded to 3/16" aluminum plating on the floors, rear walls, side walls, doors, door skins and roof.

## A STRONG FOUNDATION

C-channel frame 10.25"x3.5".375" with 110,000 psi heat treated steel and 16.61 cubic inch section modulus deliver 1,827,045 inch pounds resistance to bending moment. This strong frame carries a lifetime warranty that includes the cross members. In the case of aerial applications above 78 feet, an integral torque box is employed.

Heavy-duty Sheppard steering system is vendor reviewed and approved. Industry-leading 45-degree cramp angles provide excellent maneuverability in close quarters.

Third-party certified aluminized steel fuel tanks with stainless steel restraining straps.

Optional 17" front and rear disc brakes improve brake performance over traditional systems.

Engine intake draws air through the grill, ahead of the radiator, above headlight level preventing water ingestion from standing water.

## SMALL DETAILS = BIG QUALITY

Sometimes the smallest piece of a puzzle can be the most vital. At E-ONE we realize all the small details add up quickly when producing the industry's highest-quality apparatus. Even seemingly insignificant items such as the six-point, star-shaped Torx Fasteners used throughout E-ONE's manufacturing process greatly impact the overall finished product. Torx Fasteners offer more consistent torque while reducing the risk of damage to the driver tip, the screw head and the work surface. For you, details like these, equate to a product quality unsurpassed in the industry.





### TESTED TO PERFECTION

Tested to rigorous SAE and ECE standards, E-ONE cabs not only meet but exceed the current NFPA 1901 requirements. In recent third-party testing, our cab structure withstood over five times the static roof load and over twice the frontal impact required by the NFPA and SAE – making it the strongest cab in the industry. Every E-ONE cab is designed and built with a structural cage design to provide maximum protection and comfort for firefighters. Structural extrusions including sub-frames, a full flange wishbone frame rail, center uprights and crossbeam extrusions are all engineered for exceptional performance. Horizontal and vertical supports carry severe vertical loads that can occur in an accident. The exterior cab skin material is made of 3/16" aluminum-alloy sheet for added strength.





### G4™ - ELECTRONIC STABILITY CONTROL

G4, E-ONE's exclusive electronic stability control system, ensures you make it to the scene quickly and safely, even when you're behind the wheel of the heaviest of vehicles. G4 utilizes sensors on each wheel to constantly monitor driving conditions. When critical lateral acceleration is detected or if the tires begin to slip, the system intervenes. Available on all E-ONE custom chassis, G4 adjusts power and braking using roll stability control, anti-lock brakes and automatic traction control. Optional 17" front and rear disc brakes improve brake performance over traditional systems. The result: more stability during evasive maneuvers and more confidence behind the wheel.

### ROLLOVER PROTECTION SYSTEM

When the unthinkable happens, it's best to be prepared. With that in mind, E-ONE teamed with LifeGuard Technologies®, a division of IMMI® (a leading provider of advanced safety systems). Through this partnership, we integrated a state-of-the-art Roll-Over Protection System into our proven cab designs. When a rollover event is inevitable, a roll sensor activates the system, tightening the seat belts to secure each firefighter to the seat and deploying inflatable head curtains at each front and rear outboard location.

### INTEGRATED TETHERED SEAT BELTS

Your seat belts are only as secure as the structure they are connected to. To better hold crew members in place, we've also developed a unique tether system that secures the ABTS seat backs to the rigid cab structure. By being connected to a sturdier structure, the seats experience less deflection, increasing occupant safety.



The Quest cab is designed to be stronger, more spacious, comfortable and ergonomic. From the tread plate aluminum roof to the extruded lattice sub frame, the E-ONE Quest has been engineered to be the benchmark in custom chassis construction. The Quest offers three cab lengths - 58", 68" or 80" - and three vista roof heights - 12", 16" or 20".

**FRONT WINDSHIELD**

An expansive 3728 square inches of front windshield with angled back profile provides unsurpassed corner and up-front visibility where it counts. A two-piece glass design permits easy replacement and minimizes maintenance expense.

**WIPERS**

Two extended 28" wet arm wiper blades that also clear the area in front of the mirrors - an industry first.

**POWER MIRRORS**

Front cab-corner power mirrors provide maximum side visibility and field of view. Available with top convex, bottom convex, heated glass and turn signal indicators. Door mounted mirrors are also available.

**MEDICAL CABINETS**

A variety of medical cabinets are available with exterior access, interior access or both. Interior cabinets are available with options such as over the cab wheel well(s), centered on the rear cab wall, outboard on rear cab wall or at the rear of the engine cover.



**ENGINE OPTIONS** Quest



- ISC330 HP
- ISC380 HP
- ISL370 HP
- ISL450 HP
- ISX11.9 450 HP
- ISX11.9 500 HP
- ISX15 550 HP
- ISX15 600 HP



- MF10 350 HP
- MF13 475 HP



SPACE TO WORK



ERGONOMIC INSTRUMENT PANEL



INTEGRATED SIREN SYSTEM AND STREAMLINED ENGINE

**OFFICER-SIDE WORKSPACE**

In the Quest, legroom from seat base to front of firewall is an impressive 27 1/4" while hip room is a comfortable 23". An officer-side switch panel provides a mounting location for spotlight system controls, integrated siren control panel, (2) 12 Volt power outlets and air horn controls. This preserves valuable floor space and prevents unintentional device activation.

**INSTRUMENT PANEL**

A well-positioned instrument cluster with excellent visibility through the steering wheel and oversized characters provide a quick read for the driver with minimal distraction. The outboard switches help technicians with maintenance and are quickly identified by drivers.

**ISS - INTEGRATED SIREN SYSTEM**

To improve efficiency during response, we have provided an easy-to-reach siren control for both the driver and officer. Each position has full control including power up. The integrated design positions the PA control and microphone down on the dash eliminating a hanging cord from the driver's field of view.

**ENGINE COVER**

The engine is covered by a fiber-textured composite clad padding system - reducing heat and cab noise levels while providing a soft surface for occupant comfort. The transmission control pad is recessed mounted to improve cab dash visibility and workspace.



#### POWER WINDOWS, LOCKS & PEDALS

The Quest is standard with power windows and locks. Up-front switching gives the driver control of all windows while each door has individual controls. Standard remote control for locks can also control electric roll-up door locks if equipped.



#### FLUSH DOORS

The Quest features flush style doors with hidden hinges for maximum sealing, noise reduction and improved appearance. A large driver and officer front door window improve visibility by using a single piece roll down glass design the doors swing open 90 degrees to provide easy entry and egress. A flush oversized door latch is mounted low for gloved hands and easier access. The Quest can be supplied with standard full-length doors or optional barrier style.



CYCLONE II

The Cyclone II cab offers four cab lengths, 2 to 4 doors, multiple seating configurations and various internal storage options. This custom cab also offers numerous ALS compartment layouts, barrier doors, bumper options and lighting packages. When combined with our torque box chassis, the Cyclone II offers one of the best handling chassis/aerial combinations in the industry. The Cyclone II is available in three cab lengths - 58", 67.5" or 80" - and three vista roof heights - 12" 16" or 20".



The Cyclone II engine cover is constructed from self-skinning polyurethane. The padded cover features integral arm rests and cup holders. A hinged door provides access to both check and fill engine fluids.



SEVERE-DUTY INTERIOR

For departments requiring a heavy-duty cab interior, options are available for a severe-duty engine cover made from self-skinning polyurethane, a dash constructed from painted aluminum plate and door panels made with either brushed-finish stainless steel or painted aluminum.

ENGINE OPTIONS

Cyclone II



- ISC330 HP
- ISC380 HP
- ISL370 HP
- ISL450 HP
- ISX11.9 450 HP
- ISX11.9 500 HP
- ISX15 550 HP
- ISX15 600 HP



- MF10 350 HP
- MF13 475 HP



AERIAL CAB

AERIAL CAB

The Cyclone II aerial cab provides 3-7" lower travel height and is available in medium, long or extended cab configurations with a revised center overhead console for improved visibility. The cab features a 4.5" deep roof trough and new center dash electrical cover to accommodate a siren, directional bar control, etc.



SPLIT RAISED ROOF CAB

SPLIT RAISED ROOF CAB

Offers a 12" higher door opening for improved egress entering and exiting the cab.



CABINETS

MEDICAL CABINETS

A variety of medical cabinets are available with exterior access, interior access or both. Interior cabinets are available with options such as over the cab wheel well(s), centered on the rear cab wall, outboard on rear cab wall or at the rear of the engine cover.



ENCLOSED TOP-MOUNT

ENCLOSED TOP-MOUNT

Along with traditional Side-Mount, Top-Mount and Rear-Mount configurations, the Cyclone II chassis is available in an Enclosed Top-Mount configuration which offers a 24" vista roof, down-view windows, manual and/or electric controls, Hale® or Waterous® pumps and a Pumper or Rescue Pumper style body.



### COMMAND CAB

The Cyclone II command cab is available in two or three door configurations with or without a rear walk-through. Interiors are designed to meet department's needs with multiple work station options. The command area can be provided with or without windows and outfitted with 12v or 110v lighting and optional 110v A/C system.



CYCLONE II



The Typhoon chassis boasts the same proven roll-cage cab design as all E-ONE custom chassis but, through pre-engineered models and options, offers an affordable custom chassis for budget-conscious departments. The Typhoon offers two cab lengths, multiple seating configurations, various internal storage options, lighting packages and three vista roof heights. The Typhoon engine cover provides access for fluid checks and fill.



ENGINE OPTIONS Typhoon



ISC330 HP  
ISC380 HP  
ISL370 HP  
ISL450 HP



MF10 350 HP

TYPHOON



SEVERE-DUTY INTERIOR



CABINETS



BUMPER EXTENSIONS

**MEDICAL CABINETS**

Medical cabinets with exterior access, interior access, or both are available. Interior cabinets are available in many configurations including over the cab wheel well(s), centered on the rear cab wall, outboard on rear cab wall or at the rear of the engine cover. Exterior cabinets are available with roll-up or hinged doors.

**SEVERE-DUTY INTERIOR**

Heavy duty cab interiors are available with a severe-duty engine cover made from self-skinning polyurethane, a dash constructed from painted aluminum plate and door panels made with either brushed-finish stainless steel or painted aluminum.

**BUMPER STYLES**

Several bumper styles are available including polished stainless steel and severe-duty painted steel C-channel.

**BUMPER EXTENSIONS**

Like all E-ONE custom chassis, the Typhoon is available with a variety of bumper extensions and storage options. Capable of storing life-saving equipment such as hydraulic reels and tools, as well as front jump lines, intakes, sirens and bells.



### VISTA ROOF

The Typhoon, along with the Quest and Cyclone II chassis, is available with one of three spacious vista roof heights: 12", 16" and 20".



TYPHOON



For those who don't want to be banished to the dog house, there's the E-ONE Hush® Mid-Engine chassis. We've completely removed the engine tunnel from the cab interior to provide your entire crew with more space, more storage options and reduced engine noise. The Hush Mid-Engine cab is available in 58", 67.5" and 80" lengths with a 12", 16" or 22" vista roof and the open cab space offers a variety of storage and seating options to comfortably seat up to ten crew members.

ENGINE OPTIONS HUSH Mid-E



- ISC330
- ISC380
- ISL370
- ISL450
- ISX11.9 450
- ISX11.9 500
- ISX15 550
- ISX15 600



EASY MAINTENANCE

EASY ROUTINE MAINTENANCE

With the engine and engine cooling system located between the cab and body, there's no need to tilt the cab for service - simply open two doors and have ground-level access to the engine for routine maintenance.

REAR-MOUNT PUMP

The Hush Mid-Engine design features a rear-mount pump and pumping operations with the pump panel controls positioned on either the street side or the curb side of the body. From this rearward position the operator has increased visibility and greater maneuverability around the unit during operations.



MID-ENGINE WITH REAR-MOUNT PUMP & LOW PRE-CONNECTS

LOW PRE-CONNECTS

The placement of the mid-mount engine and rear-mount pump allow for lower pre-connected hand-lines and speed-lays allowing easier access and deployment of hose.

BUMPER STYLES

Several bumper styles are available including polished stainless steel and severe-duty painted steel C-channel. Like all E-ONE custom chassis, the Hush Mid-Engine is available with a variety of bumper extensions and storage options. Capable of storing life-saving equipment such as hydraulic reels and tools, as well as front jump lines, intakes, sirens and bells.

HUSH MID-ENGINE



### SPACIOUS INTERIOR

By removing the bulky engine tunnel which typically limits the interior cab design, the Hush Mid-Engine offers departments an open space for storage and seating options. This spacious cab allows for up to ten crew members and a variety of equipment storage and cab layouts to meet your unique first responder needs.



HUSH MID-ENGINE



## WHICH CAB IS RIGHT FOR YOUR DEPARTMENT?

	THE QUEST	CYCLONE II	TYPHOON	HUSH MID-E
<b>ENGINE</b>	330-500 HP	330-500 HP	330-450 HP	330-500 HP
<b>TRANSMISSION</b>	ALLISON EVS 3000 ALLISON EVS 4000	ALLISON EVS 3000 ALLISON EVS 4000	ALLISON EVS 3000	ALLISON EVS 4000
<b>ALTERNATOR</b>	UP TO 640AMP (DUAL) UP TO 430AMP (SINGLE)	UP TO 640AMP (DUAL) UP TO 430AMP (SINGLE)	UP TO 320AMP (SINGLE)	UP TO 430AMP (SINGLE)
<b>GVW RATING</b>	FRONT: UP TO 22,800 REAR: UP TO 62,000	FRONT: UP TO 22,800 REAR: UP TO 62,000	FRONT: UP TO 21,500 REAR: UP TO 40,000	FRONT: UP TO 21,500 REAR: UP TO 33,000
<b>FRAMES</b>	C-CHANNEL: UP TO 3.3 MILLION RBM INTEGRAL TORQUE BOX: UP TO 19 MILLION RBM	C-CHANNEL: UP TO 3.3 MILLION RBM INTEGRAL TORQUE BOX: UP TO 19 MILLION RBM	C-CHANNEL: UP TO 3.3 MILLION RBM	C-CHANNEL: UP TO 3.3 MILLION RBM
<b>CRAMP ANGLE</b>	UP TO 45 DEGREES	UP TO 45 DEGREES	UP TO 45 DEGREES	UP TO 45 DEGREES
<b>BRAKE SIZE</b>	S-CAM: STANDARD 17" DISC: OPTIONAL	S-CAM: STANDARD 17" DISC: OPTIONAL	S-CAM: STANDARD 17" DISC: OPTIONAL	S-CAM: STANDARD 17" DISC: OPTIONAL
<b>CAB LENGTHS</b>	MEDIUM: 58" LONG: 68" EXTENDED: 80"	MEDIUM: 58" LONG: 67.5" EXTENDED: 80"	MEDIUM: 58" LONG: 67.5"	MEDIUM: 58" LONG: 67.5" EXTENDED: 80"
<b>VISTA ROOF HEIGHTS</b>	12", 16", 20"	12", 16", 20"	12", 16", 20"	12", 16", 20"
<b>SEATING CAPACITY</b>	UP TO 10	UP TO 10	UP TO 10	UP TO 10"
<b>ELECTRICAL SYSTEM</b>	MULTI-PLEX	MULTI-PLEX	MULTI-PLEX	MULTI-PLEX
<b>ROLL CAGE CAB</b>	STANDARD	STANDARD	STANDARD	STANDARD
<b>ROLL OVER PROTECTION</b>	OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL
<b>STABILITY CONTROL</b>	G4 OPTIONAL	G4 OPTIONAL	G4 OPTIONAL	G4 OPTIONAL
<b>FRONT SUSPENSION</b>	SPRING: STANDARD IFS: OPTIONAL	SPRING: STANDARD IFS: OPTIONAL	SPRING: STANDARD IFS: OPTIONAL	SPRING: STANDARD IFS: OPTIONAL

