

# **37-39 and 40 Chevy Chassis Builders Guide**



Thank you for your interest in a Fatman Fabrication frame for your 37-40 Chevy. Before you begin there are a few things we would like to discuss and point out.

First, **PLAN YOUR PROJECT!!!** Know how you want it to look when it's finished. This will be repeated many times because it can't be said enough. Do you intend for it to be hi-tech or old style? Billet wheels or painted steelies? Pro street? Pro touring? Ground scrapping low? Who's going to drive the car and where? Is it going to be a low mileage show car or a freeway flyer for cross country cruising? Establish parameters based on *reality* and not just wishful thinking. Blown big block motors rarely make good long-distance cruisers. Big inch wheels look awesome on some cars but tradeoff ride comfort for looks by requiring short sidewalls that don't absorb road shock. Remember, there is a tradeoff to everything, so save yourself time, money, and aggravation by planning your project.

Second, keep in mind **you are building a car**. You may be using an old steel body, but manufacturing process 60+ years ago were not very exact and there are minor variations in all these old cars, and minor modifications are likely on **every** step of the car, so plan for that and **test fit everything** before you paint or powdercoat anything. But, after building over fifty of these frames we have them dialed in pretty good.

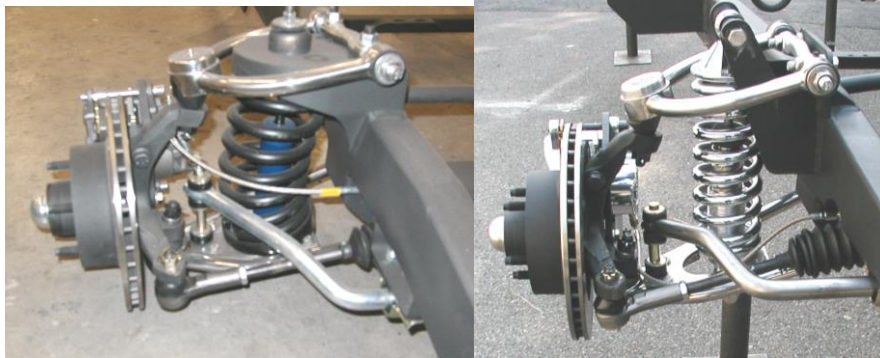
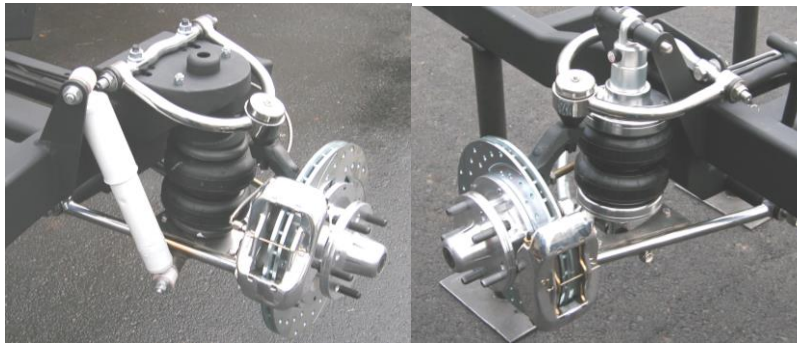
All of our frames for the 37-40 Chevys are constructed of 2"x4"x.188" mandrel bent rectangle tubing with 1"x2".120" mandrel bent x-member. They are made to follow the original shape and form, and to fit with original body mounts. We include radiator mount holes, bumper mount holes, the topside body mount holes, and running board mounts. For the sedans we also include the gas tank mounts. We have been accused of building our frames "too heavy duty", but we pride ourselves on a strong, rigid frame which you'll find is an extra big benefit if you're using a fiberglass body or parts. And besides, why build anything on a questionable foundation?

### **Front suspension**

Fatman frames come standard with Stage 2 suspension, which uses coil springs and Ridetech MII shocks. The ride height is approximately 4" lower than stock height and track width comes stock (56 1/2") width. Tire to fender clearance is adequate on these cars, but attention should be paid to your wheel and tire spacing. 7" or smaller wheels fit the best. You can also choose a 2" drop spindle for a lower ride height or our exclusive 1 1/2" raised spindle for a more conservative ride height. Be aware, these frames will NOT maintain stock ride height no matter which option you choose.

Stage 3 coilovers are our most popular option for the frontend because slight height adjustment, excellent shock, and good looks that match the electroless nickel plated steel tubular control arms that is standard on all frames, regardless of stage ordered.

Air ride comes in either "cool" ride (Stage 4) or shockwave (Stage 5). "Cool" ride has the air spring in place of the coil spring and the shock mounted behind the control arms. Shockwaves are similar to how a coilover looks and mounts with the shock inside the air spring. A compressor system is needed with both options. Manual rack and pinion steering is standard on "roller frames", but power steering is available as an option and is generally recommended.

**Stage 2****Stage 3****Stage 4****Stage 5**

Shocks are probably the biggest factor in ride comfort and handling of a car. Shocks are the ‘brains’ of the front suspension because it controls the velocity of the suspension. NASCAR teams take dozens of shocks to the track but only a couple pair of springs. Ridetech shocks are standard and allow you to fine tune your ride comfort and handling of your car.

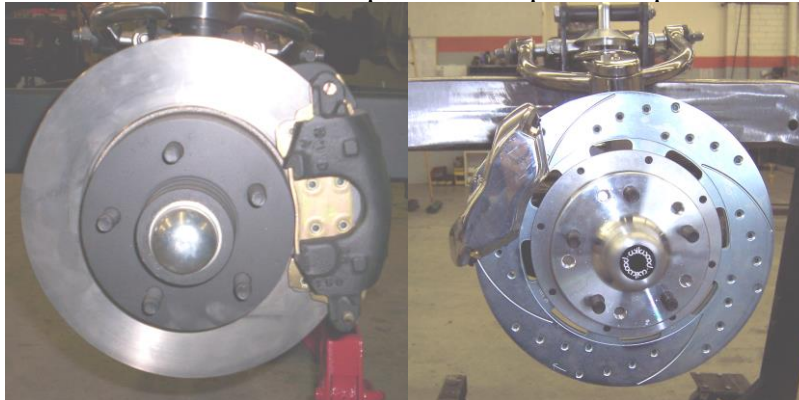
### **Brakes**

Something to keep in mind as we discuss brakes is that some people use bigger brakes to “fill” their new big billet wheels or as a “dress up”, without thinking about the safety aspect. 37-40 Chevys generally weigh about the same as a stock Mustang II car, but remember bigger brakes are better brakes. You have never heard anyone say “if I had less brakes I could have really nailed that car”.

That is why all Fatman frames come standard with OE style kits that use early GM “big” piston calipers and provide 65% more braking capacity than the stock Mustang II, and twice as much as other kits that that use the small piston GM calipers. These 11” disc brakes use OEM parts that are easily serviceable units using parts that are available at your local auto parts store, should you need to make emergency repairs. 5 lug 4 ½ “(Ford pattern) is standard. 5 lug 4 ¾ “(Chevy Pattern, w/ 12mm x 1.5mm metric studs) is also available but use the above-mentioned small piston GM calipers. Talk to the Fatman rep. about the options that are available for bigger brakes if using Chevy pattern.

We have several options from Wilwood. Wilwood has an aluminum GM big piston replacement caliper that uses OEM brake pads. Complete Wilwood big brake kits

are available that uses aluminum hubs, 4 piston aluminum black calipers with 11-inch, 12 inch, or 13 inch rotors. Drilled rotors and polished calipers are options on these kits.



**Standard brakes**

**Wilwood drilled and polished brakes**

Keep in mind that larger brake kits require larger wheel/tire combinations. Talk to the Fatman rep about what will fit. **Remember** bigger brake options are cheaper than a new fender or grill that you will have to buy because a new Honda that you rear ended has better brakes than you! Above all, think safety first.

### **Master cylinder and power brake options**

Manual brakes come standard and work well with common disc/drum combination brakes. They leave extra room for exhaust routing also. Power assist brakes are a great option and are recommended with disc/disc applications. To make it easier to service the master cylinder, remote filling kits are available as is a “cooler” looking aluminum reservoir kit. Chromed and polished booster/master cylinder kits are also available.

We use standard automotive steel brake lines for brake plumbing. These are D.O.T. approved, show quality looking and will last a lifetime. When you see the bent lines you’ll swear a machine did it. We also use braided stainless flex hoses from the frame to the calipers. Metering valves are used with disc/drum applications. 2 psi residual pressure valves are used between master cylinder and discs, and 10 psi residual pressure valves are used with drums.

## Rear Suspension

We use Chassis Engineering parallel leaf springs on the rear. They can be setup to accommodate either the standard or ultra-low ride heights. They provide excellent ride quality and adjust for changes in load (people and luggage) very well. They are excellent for a stock width frame, but don't work well with frame rails that have been narrowed to accommodate larger tires. 4 bar rear suspension (either parallel or tri-link) is used with coilovers or air ride. We often recommend the air ride on the rear due to the flexibility afforded with the variable pressure. Coilovers do not accommodate changes in load well as they have a given spring rate that may be comfortable in an empty car, not heavy enough in car loaded with extra stuff. The air ride can be set for a comfortable ride and proper ride height at the push of a button, regardless of the load. Don't forget a compressor fill kit is required with an air ride suspension so there is an extra cost and there is less exhaust routing area. The floor will have to be modified in the trunk area when using coilovers or air ride.



**Leaf Springs**

**Tri Link w/ air springs**

## Sway bars

Rear sway bars come standard on all car frames to help control body lean. We seldom use a front sway bar because of the nearly 50/50 weight distribution and good roll center on Mustang II based suspensions. If using a big block engine, then one is recommended. Also, if you want a "G" machine that has excellent cornering qualities, then choose this option. Plus, if the "midlife crisis" guy with the new Corvette thinks that your "old" car is no match for his, you will have something for him. Beware; some ride quality suffers to make it handle better. Again, this all goes back to what kind of car you are building.

If using rear disc brakes with coilovers or air ride suspension with either disc or drum, a prostreet style rear sway is required.

## Rearends

Fatman standard 'roller' frames include a new 9" Ford rear housing and 28 spline axles supplied by The 9" Factory in Caspian, MI.

You can get brand new gear sets also supplied by the 9" Factory. Available in Trac Loc, Tru-trac or 'open' configuration. All new gearsets feature a nodular case, aluminum bearing support and new non-billet yoke.

You can get disc and drum brakes for the 9" rearends. We generally use kits that use O.E.M. parts. Kits from Wilwood are also available to match front brake assemblies or also for better frame clearance issues.

8" wide wheels, regardless of the diameter, will fit under the rear fenders with the proper backspacing. 10" or wider wheels will require the rear frame rails to be narrowed. We will have a 9" rearend made per your exact measurements of your mounted tire and wheel combination (No, we're not going to go by what the tire manufacture says the inflated tire size is. We have yet to see the right measurement in those pamphlets).

## Engine/Transmissions

We can setup the chassis for small or big block Chevy engines. The small block with a short snout water pump fit the best and is easily customized. LS series engines require an adapter plate that we can supply. They also will require the use of an aftermarket accessory drive system. Steering hookup for an LS series is difficult at best, so choose headers carefully. Any engine other than a Chevrolet will require us to have it in hand for placement.

700R4 and 4L60 overdrive transmissions are popular due to the stoplight friendly first gear and the overdrive for the highway. With the 700R4 we do need to know if it is case mount or tailshaft mount. We also will need the measurement from front face of transmission to the transmission mount on the Chevy 4L60E as they do vary. With manual shift transmissions we will need the measurement from bellhousing to transmission mount, the width at the widest point.

We set up the clutch pedal assembly using a Wilwood hydraulic clutch master cylinder. You will set up the transmission with whichever style of hydraulic clutch slave cylinder you desire.

## Finish of frames

All frames come completely assembled (except air ride compressor systems and fuel tanks) and coated with a rust inhibitor. As an option *Reflections Paint and Body Shop, Inc.* (located in the same complex) has a frame priming service that includes the following steps:

1. Alcohol wash
2. Orbital sanding
3. Phosphoric acid wash
4. Etch priming
5. Epoxy priming

Epoxy primer is packaged in a variety of different colors. The black epoxy is the most popular of all the colors but will fade in the sun and eventually absorb water, so it should receive at least a coat of semi-gloss clear to seal it. When catalyzed and sprayed, the black epoxy gives the same “satin” appearance as any new sheet metal parts right out of the factory. This primer can be left as is but will hold up best if scuff sanded and topcoat painted. This paint system is recommended by the paint manufacturer and is the best undercoat system available on the market today. Remember, not everything is exact and some minor modifications are likely on **every** step of the car, so plan for that and **test fit everything** before you paint anything.

### **Other options**

The power steering hose kit is a must have if going with power steering. This kit supplies 4 different fittings to connect to nearly any power steering pump with integral reservoir. The braided stainless hose can be cut to length for a custom fit.

The 3 U-joint steering hookup kit supplies Borgeson U-joints, 3/4” steel rod, and heim joint. Use 3/4” wood dowels or plastic pipe in place of the steel rod to mock up with.

### **Notes**

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### **37-40 Chevy Builders Special Frame**

#### **Standard Items include:**

- 2”x4”x.188” mandrel bent tubing frame rails, 1”x2”x.120” mandrel bent x-member
- Radiator and bumper mount holes, topside body mount holes, runningboard holes, and gas tank mounting holes
- Mustang II based front crossmember made of 3”x4”x .312” tubing and upper mounts for stage 2 to stage 5
- Engine and transmission mounts for small or big block Chevy

Add your own bolt on front suspension parts, rear suspension, and brake pedal assembly

**Builder special \$ 7,495**

**Builder special options:**

|   |              |
|---|--------------|
| <input type="checkbox"/> Front bolt on suspension parts           | from \$1,745 |
| <input type="checkbox"/> Manual brake pedal and bracket installed | add \$450    |
| <input type="checkbox"/> Power brake pedal and bracket installed  | add \$750    |
| <input type="checkbox"/> Mounts for leaf springs                  | add \$295    |
| <input type="checkbox"/> Rear leaf spring kit                     | add \$650    |
| <input type="checkbox"/> Rear sway bar                            | add \$325    |

**37-40 Chevy Roller Chassis****Standard Items include Builder Special items plus:**

- Fatman stage 2 front suspension including electroless nickel plated steel tubular control arms, coil springs, Ridetech shocks, mustang II spindles with 11" disc brake assembly, and manual rack and pinion steering
- Single pedal brake assembly with manual master cylinder
- Chassis Engineering parallel leaf spring rear suspension with rear sway bar
- New 9" Ford rear housing with 28 spline axles
- Shipped coated with a rust inhibitor

**Roller price \$12,500****Options****Front upgrades:**

|   |   |
|---|---|
| <input type="checkbox"/> coilsprings (Stg 2)                  | no charge   |
| <input type="checkbox"/> coilovers (Stg 3)                    | add \$750 triple adjustable add \$1,170.00 to option                    |
| <input type="checkbox"/> "Cool" air ride (Stg 4)              | add \$895   |
| <input type="checkbox"/> shockwave (Stg 5)                    | add \$1,200 triple adjustable add \$1,200.00 to option                  |
| <input type="checkbox"/> power steering                       | add \$200   |
| <input type="checkbox"/> 2" drop spindles                     | N/C option  |
| <input type="checkbox"/> 1 1/2" raised spindle                | add \$275   |
| <input type="checkbox"/> front sway bar                       | add \$370 recommended for big blocks, better handling                   |
| <input type="checkbox"/> front sway bar -air ride             | add \$440   |
| <input type="checkbox"/> Chevy bolt patt.                     | add N/C 82-92 Camaro rotor and caliper                                  |
| <input type="checkbox"/> Zero offset brake kit                | add \$450 hub style, large caliper, avail Ford or GM pattern, 11" rotor |
| <input type="checkbox"/> Zero offset-13 kit                   | add \$550 " " " " " " " " " " 13" rotor                                 |
| <input type="checkbox"/> Wilwood caliper                      | add \$365 black or red powdercoated, includes pins                      |
| <input type="checkbox"/> Wilwood 11" kit                      | add \$640 4 piston, alum. hub, fits 15" or larger wheels                |
| <input type="checkbox"/> Wilwood 12" kit                      | add \$695 4 piston, alum. hub, fits 17" or larger wheels, some 16's     |
| <input type="checkbox"/> Wilwood 13" kit                      | add \$1,130 6 piston, alum. hub, fits " " " "                           |
| <input type="checkbox"/> above Wilwood kits drilled rotors    | add \$100   |
| <input type="checkbox"/> above Wilwood kits red calipers      | N/C   |
| <input type="checkbox"/> above Wilwood kits polished calipers | add \$115 4 piston, 6 piston N/A  |



**Engine upgrades:**

|  |           |                              |
|--|-----------|------------------------------|
| <input type="checkbox"/> SB or BB Chevy    | N/C       |                              |
| <input type="checkbox"/> any other engines | add \$500 |                              |
| <input type="checkbox"/> Chevy LS          | add \$75  | includes motor mount adaptor |

**Power brake upgrades:**

|   |           |  |
|---|-----------|--|
| <input type="checkbox"/> power booster    | add \$295 |  |
| <input type="checkbox"/> show p/b         | add \$550 | stainless steel booster, chrome master cylinder          |
| <input type="checkbox"/> remote fill      | add \$225 |  |
| <input type="checkbox"/> Alum remote fill | add \$385 |  |
| <input type="checkbox"/> brake lines      | add \$895 | D.O.T. approved steel hard lines and braided steel hoses |
| <input type="checkbox"/> clutch pedal     | add \$550 | includes Wilwood clutch m/c for hydraulic hookup         |

**Rear Suspension upgrades:**

|  |             |   |
|--|-------------|---|
| <input type="checkbox"/> ultra low leaf              | add \$300   |   |
| <input type="checkbox"/> 4 bar w/ coilovers          | add \$1,900 | triple adjustable add \$1,170.00 to option                |
| <input type="checkbox"/> 4 bar w/ "cool" air ride    | add \$2,300 |   |
| <input type="checkbox"/> 4 bar w/ shockwaves         | add \$2,225 | triple adjustable add \$1,200.00 to option                |
| <input type="checkbox"/> Stainless steel 4 link bars | add \$750   | add on to above 4 link systems                            |
| <input type="checkbox"/> frame notches               | add \$250   | required for some ultra low and rear disc brake clearance |
| <input type="checkbox"/> pro street rails            | add \$1,950 |   |
| <input type="checkbox"/> pro street sway bar         | add \$495   | required with some 4 bar setups and/or rear disc brakes   |

**Rearend upgrades:**

|  |                               |  |
|--|-------------------------------|--|
| <input type="checkbox"/> 31 spline axles   | add \$390                     |  |
| <input type="checkbox"/> new open 9" gearset   | add \$1,795                   |  |
| <input type="checkbox"/> new Trac Loc 9" gearset                                     | add \$1,850                   |  |
| <input type="checkbox"/> Tru-trac upgrade from Trac-loc                              | add \$450 to Trac-loc option  | requires 31 spline axles                                 |
| <input type="checkbox"/> new HD Nodular case -35 spline Tru-trac gearset w 1350 yoke | add \$750 to trac-loc gearset |  |
| <input type="checkbox"/> new drum brakes for 9"                                      | add \$590                     |  |
| <input type="checkbox"/> OE style rear disc  | add \$775                     | 11" Trans-Am rotors, Cadillac calipers w/ parking brake  |
| <input type="checkbox"/> Wilwood 11" rear disc                                       | add \$870                     | 11" rotors, 4 piston-will fit most 15" disc brake wheels |
| <input type="checkbox"/> Wilwood 12" rear disc                                       | add \$875                     | 12" rotors, 4 piston with internal shoe parking brake    |
| <input type="checkbox"/> above Wilwood kit drilled rotors                            | add \$100                     |  |
| <input type="checkbox"/> above Wilwood kit red calipers                              | N/C                           |  |
| <input type="checkbox"/> above Wilwood kit polished calipers                         | add \$115                     |  |

**Other options:**

|  |             |                               |
|--|-------------|-------------------------------|
| <input type="checkbox"/> epoxy primer                          | add \$1,850 |                               |
| <input type="checkbox"/> Borgeson 3 joint steering hookup      | add \$355   |                               |
| <input type="checkbox"/> Power steering hose kit               | add \$155   |                               |
| <input type="checkbox"/> 2 way Air ride comp. kit w tank       | add \$900   |                               |
| <input type="checkbox"/> 4 way Air ride analog system-3 gal.   | add \$1,225 | manual operation, dial gauges |
| <input type="checkbox"/> 4 way Air ride digital system- 3 gal. | add \$2,225 | Ridepro E5                    |
| <input type="checkbox"/> 4 way Airpod comp kit-3 gal. w/ cover | add \$2,680 | Ridepro E5                    |

Custom options available, if you have an idea let's discuss it.

Total options \$ \_\_\_\_\_  
Roller frame +\$12,500

Total price \$ \_\_\_\_\_

1/3 deposit required with order. Personal check ok for deposit. 1/3 payment required once your frame goes into our frame jig. Balance due prior to shipment in cashier's check. Shipping cost will be added to final balance once a shipping quote is received from one of our freight carriers. No credit cards on frame orders. Shipped frames require a \$330.00 pallet fee. Shipped frames may require applicable sales tax charges for their respective states. No refunds on completed frames. Frames picked up are subject to North Carolina sales tax currently 7.25%

Once our sales team has worked with you on a basic plan, we will connect you with our frame shop specialist. He will assist you in verifying and dialing in the final version, then we'll send a written proposal for your approval. A signed copy must be returned to us before the frame is ready to be built and will assure that both parties clearly understand the chassis specifications, the way you want it!

(704)545-0369 phone  
(704)573-0401 fax

