

S&W Performance Group

USA Chassis Builder, Racing Components and High Performance Auto Parts Manufacturing.

Builder of Championship Winning Race Cars, Chassis Kits and Components Since 1959

#1 Tech Support in the Industry

Over 2,800 Make Model & Style Listings for Roll Bars & Roll Cages listed on digital and Print Catalog Pages 23 through 29.

- Domestic and Import Cars, Trucks, Jeeps, SUV's and 4x4
- Custom Cages are a specialty for custom vehicles and/or custom fitment
- Tubing is cut on our High Speed Plasma tube Processing Center
- Tubing is precision bent on our Pines and Hossfeld tube bending machines

Available Styles:

- 4 Point Weld In Street Bars
- 8 Point Weld In Roll Bars
- 10 Point Weld In Roll Cages

Most 8 Point & 10 Point available in these configurations:

- Thru Dash
- Around Dash
- Runner Style

Material Choice:

- EWS
- DOM
- Chromoly

Available Upgrades and Conversions:

- SCCA Upgrade
- Super Stock Upgrade
- Full Cage Sportsman Upgrade
- Funny Car Cage Conversion
- Roll Bar to Roll cage Conversion
- Pro Street Rear Runners
- Sfi 21.1 E Cockpit Conversion
- Dropped Street Sidebar
- Offset Door Bars Nascar Style

Roll Bar & Roll Cage Accessories:

- Swing Out Side Bar Kits
- Window Nets and Window Net Release Kits
- Switch Mounts
- Helmet Hooks
- Steering Wheel Hooks
- Camera Mounts
- Carbon Fiber Tubing Protectors
- Replacement Pieces

Read installation instructions thoroughly before beginning. A detailed instructions packet is included with your kit.

Roll Cage Installation

What to consider before you purchase a kit

What type of racing are you going to do; Drag racing, road racing, drifting, ...

What sanction body rule will the roll cage have to conform to; NHRA, IHRA, SCCA, Formula Drift, LeMons,

What material does the cage have to be made from; Mild steel EWS, Mild steel DOM, Chrome-Moly.

What OD & wall thickness do you need?

Roll Bars & Roll Cages are designed to meet and exceed NHRA, IHRA and most major road race and off-road organizations requirements for material size & thickness, but must be installed in accordance with sanctioning bodies guidelines and rules. They are designed to comfortably fit with your stock interior in place. If you desire a custom tailored fit, our team will bend a custom cage to your measurements.

Welding: Tack weld all components in place before doing the final welding. When installing the cage keep in mind that you have to weld all joints all the way around. Some sanctioning bodies allow the use of gussets where you cannot weld a joint 360 degrees around the tube. One method of welding the cage is to tack the cage together, and then cut holes in the floor and drop the cage through the floor, and weld the top joints of the roof hoop and main hoop and the roof hoop and windshield runners. Another welding method is to break the roof hoop away from the main hoop,

lower it, then weld the windshield runners to the roof hoop. Mild steel cages can be MIG welded or TIG welded. Chrome-moly cages have to be TIG welded. We use 0.030" or 0.035" ER70 S-6 wire for MIG welding. For TIG we use 0.045" or 0.063" ER70 S2 wire.

Note: Sparks from welding and grinding will damage glass and plastic.

Refer to our Roll Bar & Roll Cage instructions for safety tips and diagrams for typical installations.

Download installation instructions: <https://swracecars.com/wp-content/uploads/2021/05/RB-RC-instructions-SW-03-31-2021-Final.pdf>

Installation Tips

Note: some tubes are supplied notched or with miter cuts. These notches and cuts may need to be adjusted for your installation.

Main Hoop: Determine the location of the Main Hoop. Do this using the seat you will be using when racing and with the driver wearing a helmet. The Main Hoop should no more than 6" from the back of the helmet. The main hoop can be installed at a slight angle. Note the location of the bottom hoop on the floor. If you are installing the cage in a unibody vehicle, form the floor plates to fit the floor where the hoop will mount. If your vehicle has a frame, the main hoop must sit on top of the frame or on outriggers welded to the frame. Tack the Main Hoop to the floor plates, frame or outriggers.

Back Bars: These tubes go from the top of the main hoop down to the trunk floor. The top of the tubes should be no more than 5" below the top of the hoop. These tubes should be at an angle of 70 degrees or more to the main hoop. Some sanctioning bodies require that they are as close to 45 degrees as practically possible. They have to be welded to floor plates or directly to the frame rails.

Seat Crossmember/Shoulder belt Tube: This tube should be located so that it is a few inches lower than the driver's shoulders or just below the shoulder belt openings in the racing seat. The shoulder belt should have a downward angle as they come over your shoulders. Note: If your cage requires a diagonal in the main hoop, the shoulder belt tube should be installed after the diagonal is installed.

Roof Hoop: Fitting the roof hoop can be tricky. The legs of the hoop are not notched, you will have to notch them. The tricky part is holding it in place so that you can mark the ends for the notch. One way to make this easier is to hold it in place with a ratchet strap. The strap is rapped around the roof through the windows and holds the hoop up. Another method is to use a prop to hold the front of the hoop in place. The roof hoop does not to be flush with the top of the main hoop. It usually attaches to the main hoop somewhere in the bend section of the tube. Be sure that no part of the helmet is above the roof hoop when seated in the vehicle

A-Pillar/Windshield Tubes: We have two types of windshield runners. Through the dash and around the dash. Both are installed the same. You want to install the windshield runners so that they do not impede the driver's line of sight. Fit the top of the tube in the bend area of the roof hoop, the bottom will weld to a floor plate or outrigger. Once you know where the tubes will fit, form the floor plates to fit the floor. Fit these tubes very carefully, because the top of the tube meets the roof hoop at an angle, and on the curve, it is very easy to remove too much material when fitting.

Lateral Supports (D-bars): These tubes are required for unibody vehicles that will be drag raced. They are not required for vehicles with full frames, but I strongly recommend using them. They greatly increase the lateral stiffness of the roll cage. Cars that are front wheel drive must have these tubes welded to a crossmember that runs between the rocker boxes. The top of the tube is attached to the main hoop below the seat crossmember. The bottom welds to floor plates that are welded to the driveshaft tunnel or floor. These tubes do not have to be in line with the main hoop.

Dash Bar: This tube is installed between the two windshield runner tubes. This tube can go above or below the steering column. If putting this tube below the steering column check that it does not restrict your access to the throttle, brake or clutch pedals. Some sanctioning bodies do not require this tube to be installed. We recommend installing it because it does increase the strength of the cage.

Side Bars: The side bars run between the main hoop and the windshield runners. This bar should pass between your shoulder and elbow when you are sitting in the seat. The bar should run downward from back to the front. It can intersect the main hoop above, below or in line with the seat crossmember bar. At the front it should connect to the windshield runner a few inches above the floor. Check that the location of the side bar does not interfere with any window cranks or door handles. On some vehicles it may be necessary to remove the arm rest.

Swing Out Side Bar Kit: Refer to our product instruction for general installation instructions. This is the best way we have found to install a Swing Out Side Bar Kit. Complete the cage installation and do all welding. Determine where you want the front hinge to be. Determine where the rear pin should be. The pin at the back of the swing out must be within 8" of the main

hoop. Cut the side bar out of the cage. Now drill the holes in the side bar for the bushings and weld them into the bar. Assemble the clam shell halves to the front of the side bar. Note, the open side of brackets face outward. Hold the side bar in place. Tack the clam shells to the side bar stub on the windshield bar. Assemble the clam shells at the back end of the side bar. Tack weld the clam shells the main hoop side bar stubs. At this point check that the side bar swings out. It may be necessary to remove some material from the bar to get the bar to swing freely. After welding the brackets to the stubs reinstall the side bar. You may have to ream the holes in the brackets and bushings due to weld pull.

Web Category: <https://swracecars.com/product-category/roll-bars-roll-cages-street-bars/>