



# TECH DATA

## Choosing Your Rhino Post Driver

Select the right size post driver for your job by answering the following questions:

1. What are the types and sizes of the posts you are going to drive?
2. How deep are you going to drive the posts?
3. Into what type of soil are you going to drive the posts?
4. Are you going to use lifting equipment for your post driver?
5. How many posts will you be driving on a regular basis?
6. What chuck adapters or accessories do you need?
7. What post driver accessories are required?

### 1. What are the types and sizes of the posts you are going to drive?

Select a post or posts from the following chart. The charts also indicates which post driver **with proper chuck adapter** is capable of driving the post or posts you selected. You may be able to select only one driver for all the posts you want to drive. If that driver does not meet all your driving needs, you may need to select an additional driver with proper chuck adapter.

**(Example:** Let's say you wish to drive a 1 5/8" line post, a 2" post, a 3" post, and a 4" x 6" H column guardrail post. The model PD-140 will drive all your posts. The PD-140 weighs 140 lbs and unless you plan to use lifting equipment or have very hard driving conditions, a PD-55 is more appropriate for the smaller posts while a PD-140 would be required for the 4" x 6" H column posts.

| Types and Sizes of Posts to be Driven      | PD-39 | PD-39P | PD-45 | PD-55 | PD-100 | PD-140 |
|--|-------|--------|-------|-------|--------|--------|
| Fiberglass T Posts                         | X     |        | X     | X     |        |        |
| 3/4" to 1" Ground Rod                      |       |        | X     | X     |        |        |
| 3/4" to 1-1/2" Reinforcing Bar Tent Stakes |       |        | X     | X     |        |        |
| 1" Concrete Form Pins                      |       |        | X     | X     |        |        |
| 1" Pipe                                    |       |        | X     | X     | X      |        |
| 1-1/4" to 1-1/2" Pipe                      | X     | X      | X     | X     | X      |        |
| 1-5/8" Pipe                                | X     | X      | X     | X     | X      | X      |
| 2" Pipe                                    | X     | X      |       | X     | X      | X      |
| 2-1/2" to 3" Pipe                          | X     |        |       | X     | X      | X      |
| T Posts                                    | X     | X      | X     | X     | X      | X      |
| Telespar Posts                             | X     |        |       | X     | X      | X      |
| Telespar Post Breakaway Bases (1)          |       |        |       | X     | X      | X      |
| 1.2 to 1.5 lbs/ft Channel Posts            | X     |        | X     | X     | X      | X      |
| 2 to 2.75 lbs/ft Channel Posts             | X     |        |       | X     | X      | X      |
| 3 to 4 lbs/ft Channel Posts                | X     |        |       | X     | X      | X      |
| Channel Post Breakaway Bases (2)           |       |        |       | X     | X      | X      |
| C Posts                                    | X     |        |       | X     | X      | X      |
| Rectangular Posts                          | X     |        | X     | X     | X      | X      |
| I Beams                                    | X     |        |       | X     | X      | X      |
| Well Points (Sand Points)                  |       |        |       |       |        | X      |
| 4" x 4" Wood Posts (3)                     |       |        |       |       |        | X      |
| 4" x 6" H Column Guardrail Posts (4)       |       |        |       |       |        | X      |
| 12" Sheet Piling (5)                       |       |        |       |       |        | X      |

(1) To drive the telespar breakaway bases close to the ground you will need to order a special driving cap.

(2) To drive the channel post breakaway bases close to the ground you will need to order a special driving cap.

(3) To drive 4" x 4" wood posts you will need 4" x 4" wood post chuck, part no. 70063, for your PD-140.

(4) To drive 4" x 6" H column guardrail posts you will need a 4" x 6" H column chuck, part no. 70061, and a 4" x 6" H column driving cap, part no. 70062, for your PD-140.

(5) To drive 12" sheet piling you will need to order a special chuck and driving cap for your PD-140.

## 2. How deep are you going to drive the posts?

The chart assumes you will drive those posts to depths of three to five feet. The deeper you are driving the post the larger the post driver needed.

(**Example:** A PD-55 will easily drive a 2" post three feet deep, but if you plan to drive the 2" posts ten to fifteen feet deep, for soil stabilization, you should probably use a PD-100.)

## 3. Into what type of soil are you going to drive the posts?

The chart assumes you are going to drive the posts into moist, light or medium weight soils. When driving a post, the soil has to have somewhere to go, so it is compacted beside the post, making for a very firmly set post. The heavier the soil, the fewer voids there are for the displaced soil to be compacted into. If the soil is heavy, compacted, and/or dry, it will be harder to drive the post and you may need the next larger post driver to drive the post.

**Rhino's Soil Definitions:** **Light:** Beach sand, sand, soil with a high percentage of humus, etc.  
**Medium:** Soil with less humus, occasional gravel up to 1 1/2" dia., some clay, light shale content, etc.  
**Heavy:** Compacted soils, large gravel content, clay, heavy shale, asphalt, 3" to 5" concrete, etc.

**Note:** If the soils you are driving into are dry, you can reduce driving times dramatically by wetting the ground where you are going to drive the post. It doesn't take a lot of water and it helps if you water the driving area occasionally while driving the post. You cannot drive posts in all conditions, for instance solid granite. Normally, the post hole is drilled in rock. Then the post is grouted in. If you are placing T posts in rock you can drill a smaller hole. Then drive the T post into it with a Rhino driver. *It is much faster to drill a 1" hole than a 2" hole.*

## 4. Are you going to use lifting equipment for your post driver?

If you are going to use lifting equipment to place your driver on top of the post, you should consider buying the largest Rhino driver that will drive **all** the posts you intend to drive. A larger post driver will drive your posts faster, give you maximum productivity and pay for the increased cost of the post driver many times over.

## 5. How many posts will you be driving on a regular basis?

If you are driving a large number of posts, and the weight of the driver is not a problem, it will be more productive for you to buy the next larger driver.

Rhino uses the following rule of thumb for post driver driving times:

If the PD-45 will drive a post in two minutes, the PD-39 and PD-55 will drive the same post in one minute, the PD-100 will drive it in 30 seconds and the PD-140 will drive it in 15 seconds. These are not exact times, but will provide a good estimate.

## 6. What chuck adapters do you need?

Choose the proper chuck adapters for the posts you will be driving by using Rhino Tech Data sheet, form no. 121-1. Use the misc. accessories section on the Rhino literature sheet, form no. 118, to order required or additional accessories.

## 7. What required or additional accessories do you need?

**Required accessories are a Throttle Valve Kit and a Filter-Regulator-Lubricator.**

**Throttle Valve Kit - Part No. 600000** - The throttle valve kit comes with a 2 foot hose whip which accommodates a 7 foot post. Order the throttle valve kit with one foot additional hose for every foot taller than 7 feet.

(**Example:** If your tallest post is 10 feet, order your throttle valve kit with 3 feet of extra hose on the hose whip. You will be holding the throttle valve approximately 5 feet from the ground. The 2 feet of hose that comes with the hose whip and the additional 3 feet, totaling 5 feet, will enable you to reach to 10 feet.

**Filter-Regulator-Lubricator - Part No. 601128** - The filter-regulator-lubricator has three functions: **The filter** traps dirt coming through the hose from the air compressor and helps to remove water from the air. **The regulator** must be set at the proper air pressure recommended for your driver. (See Rhino literature, form no. 118) Proper air pressure is required for the safety of the operator and others working with or near the driver. **The lubricator** is needed so you can set it to drop 10 drops of oil per minute into the air to the driver for proper lubrication. The filter-regulator-lubricator can be mounted on your air compressor and used with other tools. If you are renting an air compressor or if the filter-regulator-lubricator will be on the ground, you should order a carrier, part no. 225000, for carrying and ease of handling. The filter-regulator-lubricator should not be more than 25 feet from the post driver during operation to achieve the recommended lubrication.

**Additional Accessories** - Rhino suggests that you consider ordering anti-vibration gloves for your operators and others working with the driver. You may also wish to consider ordering a hose reel and extra air hose to use with your driver.

If you have any questions, call your Rhino representative, distributor, dealer or Rhino. We'll be happy to help.

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## DIMENSIONS AND WEIGHTS OF SEAMLESS AND WELDED PIPE

| PIPE<br>SIZE | O.D.<br>in<br>inches | PIPE SCHEDULES               |  |                              |  |                              |  |
|--------------|----------------------|------------------------------|--|------------------------------|--|------------------------------|--|
|              |                      | Sch. 10<br>WALL<br>THICKNESS | Sch. 10<br>WEIGHT<br>PER<br>FOOT<br>IN LBS | Sch. 40<br>WALL<br>THICKNESS | Sch. 40<br>WEIGHT<br>PER<br>FOOT<br>IN LBS | Sch. 80<br>WALL<br>THICKNESS | Sch. 80<br>WEIGHT<br>PER<br>FOOT<br>IN LBS |
| ?            | .840                 | .083                         | .6710                                      | .109                         | .8510                                      | .147                         | 1.088                                      |
| ?            | 1.050                | .083                         | .8572                                      | .113                         | 1.131                                      | .154                         | 1.474                                      |
| 1            | 1.315                | .109                         | 1.404                                      | .133                         | 1.679                                      | .179                         | 2.172                                      |
| 1 ?          | 1.660                | .109                         | 1.806                                      | .140                         | 2.273                                      | .191                         | 2.997                                      |
| 1 ?          | 1.900                | .109                         | 2.085                                      | .145                         | 2.718                                      | .200                         | 3.631                                      |
| 2            | 2.375                | .109                         | 2.638                                      | .154                         | 3.653                                      | .219                         | 5.043                                      |
| 2 ?          | 2.875                | .120                         | 3.531                                      | .203                         | 5.793                                      | .276                         | 7.661                                      |
| 3            | 3.500                | .120                         | 4.332                                      | .216                         | 7.576                                      | .300                         | 10.25                                      |
| 3 ?          | 4.000                | .120                         | 4.973                                      | .226                         | 9.109                                      | .318                         | 12.51                                      |
| 4            | 4.500                | .120                         | 5.613                                      | .237                         | 10.79                                      | .337                         | 14.98                                      |
| 5            | 5.563                | .134                         | 7.770                                      | .258                         | 14.62                                      | .375                         | 20.78                                      |
| 6            | 6.625                | .134                         | 9.289                                      | .280                         | 18.97                                      | .432                         | 28.57                                      |
| 8            | 8.625                | .148                         | 13.40                                      | .322                         | 28.55                                      | .500                         | 43.39                                      |
| 10           | 10.750               | .165                         | 18.65                                      | .365                         | 40.48                                      | .594                         | 64.43                                      |