

### Division 12 00 00 FURNISHINGS

### Section 12 93 00 SITE FURNISHINGS

### Section 12 93 13 BICYCLE RACKS

#### Basis of Design:

1. Product: Sportworks No Scratch® Vertical+ Bike Rack.
2. Description: Sportworks No Scratch® Vertical+ Wall Mount Bike Rack parks bikes vertically, to reduce handlebar interference, while a polyurethane pad mitigates bike scratches. Users can u-lock the front wheel and frame of the bike to a square steel tube which mitigates theft with a pipe cutter. An optional security cable further allows the rear tire to be secured. Rack also allows modular configuration, single-sided parking, daisy chaining of rack units to increase capacity -any horizontal spacing between bikes can be set.
3. Quantity: As shown on plan.
4. Material: Rack support loops: 1.0" x 1.0" x .060" Square Tubing (mild steel) with Polyurethane No Scratch® pad to protect bikes from being scratched.
5. Manufacturer: Sportworks Northwest; [www.sportworks.com](http://www.sportworks.com); 425-483-7000; [salesandsupport@sportworks.com](mailto:salesandsupport@sportworks.com)

#### Part 1 General

##### 1.01 Summary

- A. This section includes specifications for No Scratch® single-sided wall mounted bicycle parking products capable of storing bicycles in a vertical, free-hanging position, while protecting the bike frame from being scratched.

##### 1.02 Submittals

- A. Manufacturer technical drawing.
  - i. Size, shape, and finish.
- B. Installation instructions.
- C. Setback requirements.

##### 1.03 Quality Assurance

- A. Manufacturer Qualifications:
  - i. Minimum 5 years of bicycle rack manufacturing experience.
  - ii. Have manufactured and delivered this style of rack.

##### 1.04 Delivery, Storage and Handling

- A. Inspect shipment upon delivery for freight damage and note complaint with carrier.
- B. Protect bicycle racks during storage and installation.
  - i. Use original packing if possible for storage.
  - ii. Protect finish of rack from scratches or damage with careful handling.

##### 1.05 Warranty

- A. Provide manufacturer's standard warranty.
  - i. Terms of warranty: 1 year from invoice date against defects in materials and/or workmanship.

#### Part 2 Products

##### 2.01 Manufacturer

- A. Sportworks manufactured No Scratch® single-sided bike racks, with bike parking capacities ranging from 2 to 9 in a single span, that prescribe the storage of bicycles in a vertical orientation.

## 2.02 Materials

- A. No Scratch® pad: black polyurethane.
- B. Rack support loops: 1.0" x 1.0" x .060" Square Tubing (mild steel).
- C. Rack cross-members: 1.25" Schedule 40 Pipe (mild steel)
- D. Rack towers: 2.5" x 2.5" x .083" Square Tubing (mild steel).
- E. Wheel hook boot/cover: black Santoprene molded boot with enclosed end.

## 2.03 Finish

- A. Mild steel: TGIC Polyester powder coat (standard).
- B. Mild steel (cross-members only): Hot-dip galvanized (Per ASTM A123, 0.0039" minimum thickness)

## 2.03 Dimensions

VERTICAL+ WALL MOUNT RACK DIMENSIONS				
BIKE SPACING	BIKE CAPACITY	L	W	H
13	2	34.8	30.7	84
13	3	47.8	30.7	84
13	4	60.8	30.7	84
13	5	73.8	30.7	84
13	6	86.8	30.7	84
13	7	99.8	30.7	84
13	8	112.8	30.7	84
13	9	125.8	30.7	84
16	2	40.8	30.7	84
16	3	56.8	30.7	84
16	4	72.8	30.7	84
16	5	88.8	30.7	84
16	6	104.8	30.7	84
16	7	120.8	30.7	84
17	2	42.8	30.7	84
17	3	59.8	30.7	84
17	4	76.8	30.7	84
17	5	93.8	30.7	84
17	6	110.8	30.7	84
17	7	127.8	30.7	84
18	2	44.8	30.7	84
18	3	62.8	30.7	84
18	4	80.8	30.7	84
18	5	98.8	30.7	84
18	6	116.8	30.7	84
18	7	134.8	30.7	84

## 2.05 Mounting

- A. Anchor/Mounting Options
  - i. 3/8" Concrete lag screws
  - ii. 1/2" Concrete wedge anchors.
  - ii. 1/2" Concrete wedge anchors with tamper resistant nuts.
  - iii. E-Z Lock inserts for mounting to 3/4" thick plywood.

## 2.06 Construction Description and Features

- A. General Construction Description:
  - i. Support loops: support bikes in a vertical free-hanging position, via an upturned wheel hook.
  - ii. Cross-members: provide a horizontal structure for all support loops to be attached to with tensioning clamps.

- iii. Towers: provide a vertical structure for all cross-members to be rigidly attached at their ends via bolted pinch joints.
- B. General Rack Features:
- i. Rack will allow assembly by a single person.
  - ii. Rack will allow configuration as either single or double-sided.
  - iii. Rack will allow the addition of any number of cross-members and towers to increase the bike parking capacity of the rack.
  - iv. Rack will allow the installer the ability to prescribe their desired horizontal spacing of adjacent bikes if desired.
  - v. Rack will mitigate handlebar interference by orienting bikes vertically with a 12" vertical stagger of adjacent bikes.
- C. Rack Support Loop Features:
- i. Each support loop will hang one bike by the wheel via a wheel hook covered in a durable and cushioning Santoprene material.
  - ii. Wheel hooks will be angled upwards in order to reduce the chance of bikes falling off wheel hooks.
  - iii. Support loop geometry will mitigate interference with the bicycle frame, chain, crank, pedals, fork, derailleurs and wheels.
  - iv. Any potential interface zones between the bike and the rack is covered with a Polyurethane No Scratch® pad to help protect the bike frame from being scratched.
  - v. Support loops, when installed, will create a truss structure to reduce cross-member droop when fully loaded with bikes.
  - vi. Support loops will allow bike gear (such as, helmets, jackets, gloves, etc.) to be hung for storage and/or drying purposes.
  - vii. Support loop geometry will allow the bike frame (of the most common commuter type bikes) and one wheel to be locked to the rack with a variety of u-lock styles as small as 8" long x 4" wide (measured between the inside edges of the u).
  - viii. Support loops are constructed with square tubing to make cutting with a pipe cutter very difficult thereby increasing security.
- A. Cross-Member Features:
- i. Cross-members will be 'featureless' so that they can be cut down to a user specified length to better fit the dimensions of a room/space.
  - ii. Rack cross-members will sag less than 3/16" mid span, when each bicycle support element of a 7 bike single-sided rack is loaded with 38 pounds.

## Part 3 Execution

### 3.01 Installation

#### A. Wall Mount:

- i. Install 2 fasteners per wall mount bracket and 1 fastener per tower as designated in manufacturer assembly instructions.
- ii. Install bicycle rack in accordance with APBP (Association of Pedestrian and Bicycle Professionals) recommendations for location and spacing.

#### B. Mounting to Plywood:

- i. Attached 3/4" thick plywood to wall and install rack using E-Z Lock inserts as designated in manufacturer installation instructions and Plywood Installation Guidelines.

C. The installer is responsible for ensuring the mounting surface and installation method are adequate to safely secure the bicycle rack.