Hunter Product Written Specification Template (Pro-Spray)

**Part 1 – General**

* 1. General Description of Product and Function

The Hunter Pro-Spray is a sprinkler pop-up designed for residential and commercial applications in both pressure-regulated and non-pressure-regulated models. Standard Pro-Spray models shall be available with a 2, 3, 4, 6, and 12 inch (5, 7, 10, 15, and 30 cm) pop-up stroke as well as an aboveground shrub head. Pressure-regulated PRS30 and PRS40 models shall be available in a shrub model and a 4, 6, and 12 inch (10, 15, and 30 cm) pop-up stroke. Standard and PRS30 models in 6 and 12 inch (15 and 30 cm) shall have a side inlet option. Pop-up models shall have the option of a factory or field-installed drain check valve and a reclaimed water purple body cap. Pressure-regulated models shall have the option of the drain check valve and FloGuardTM technology to reduce the flow through the riser in the event of a missing nozzle. Factory-installed features shall be designated on the top of the Pro-Spray cap for easy identification.

**Part 2 – Parts and Material**

* 1. The Hunter Pro-Spray shall be available in the following options

|  |  |  |
| --- | --- | --- |
| Pro-Spray | Pro-Spray PRS30 | Pro-Spray PRS40 |
| PROS-00 | PROS-00-PRS30 | PROS-00-PRS40 |
| PROS-00-R | PROS-00-PRS30-R | PROS-00-PRS40-R |
| PROS-02 | PROS-04-PRS30 | PROS-04-PRS40-CV |
| PROS-03 | PROS-04-PRS30-CV | PROS-04-PRS40-CV-R |
| PROS-04 | PROS-04-PRS30-CV-R | PROS-04-PRS40-CV-F |
| PROS-04-CV | PROS-04-PRS30-CV-F | PROS-04-PRS40-CV-F-R |
| PROS-04-CV-R | PROS-04-PRS30-CV-F-R | PROS-06-PRS40-CV |
| PROS-06 | PROS-06-PRS30 | PROS-06-PRS40-CV-R |
| PROS-06-CV | PROS-06-PRS30-CV | PROS-06-PRS40-CV-F |
| PROS-06-CV-R | PROS-06-PRS30-CV-R | PROS-06-PRS40-CV-F-R |
| PROS-12 | PROS-06-PRS30-CV-F | PROS-12-PRS40-CV |
| PROS-12-CV | PROS-06-PRS30-CV-F-R | PROS-12-PRS40-CV-R |
| PROS-12-CV-R | PROS-12-PRS30 | PROS-12-PRS40-CV-F |
| PROS-06-SI | PROS-12-PRS30-CV | PROS-12-PRS40-CV-F-R |
| PROS-12-SI | PROS-12-PRS30-CV-R |  |
|  | PROS-12-PRS30-CV-F |  |
|  | PROS-12-PRS30-CV-F-R |  |
|  | PROS-06-SI-PRS30 |  |
|  | PROS-12-SI-PRS30 |  |

1. Specification Descriptions
   1. PROS-00 = shrub
   2. PROS-02 = 2in (5 cm) pop-up
   3. PROS-03 = 3in (7.5 cm) pop-up
   4. PROS-04 = 4in (10 cm) pop-up
   5. PROS-06 = 6in (15 cm) pop-up
   6. PROS-12 = 12in (30 cm) pop-up
   7. -SI = side inlet model for 6in and 12in (15 cm and 30 cm)
   8. -CV = includes factory-installed check valve, “CHECK VALVE” designated on body cap
   9. -PRS30 = pressure-regulated to 30 psi (2.1 bar; 210 kPa), brown body cap
   10. -PRS40 = pressure-regulated to 40 psi (2.8 bar; 280 kPa), gray body cap
   11. -F = includes factory-installed FloGuardTM technology, “FLOGUARD” designated on body cap
   12. -R = includes factory-installed reclaimed water purple cap
2. Cap Description
3. The Pro-Spray cap shall be made of a UV resistant ABS material.
4. Standard and pressure-regulated models shall be color-coded for field identification.
   1. The standard Pro-Spray shall have a black cap.
   2. Pro-Spray PRS30 model shall have a brown cap with “PRS30” marked on the top.
   3. Pro-Spray PRS40 model shall have a gray cap with “PRS40” marked on the top.
5. When specified for reclaimed water applications, the cap will be molded in purple.
6. An optional snap-on cap molded in UV resistant purple acetal shall be available to indicate the use of reclaimed water.
7. When specified as factory-installed check valve, the cap shall have “CHECK VALVE” marked on the top.
8. When specified with the FloGuard feature, the cap shall have “FLOGUARD” marked on the top.
9. Seal Description
10. The Pro-Spray shall have a pressure-activated, chemical and chlorine resistant, UV stable wiper seal that cleans debris from the riser while it retracts.
11. The seal shall be molded around a rigid plastic ring to prevent seal deformation.
12. The seal shall prevent the pop-up from sticking in the up position.
13. The seal shall seal the riser stem to the cap under normal operating pressures.
14. The seal shall be removable from the cap for easy service and be replaceable.
15. Body
    1. The body of the Pro-Spray shall be constructed of corrosion and UV-resistant ABS.
    2. Standard Pro-Spray and PRS30 models in 6 and 12 in (15 and 30 cm) shall be available with a ½-inch FNPT side inlet option.
    3. The inlet size shall be ½” thread.
16. Riser Description
17. The riser of the sprinkler shall be constructed of abrasion and UV-resistant ABS.
18. The riser shall be adjustable for pattern alignment using a two-piece ratchet mechanism.
19. The riser shall be compatible with female-threaded nozzles.
20. A stainless steel spring shall be assembled with the riser for positive retraction when the irrigation cycle is complete.
21. Flush Plug Description
22. The Pro-Spray shall have a factory-installed, removable flush plug with a pull-up tab that shall prevent debris from entering the sprinkler during installation.
23. Material: polyethylene.
24. Check Valve Description
25. The Pro-Spray shall have the option of including either a factory-installed or field-installed drain check valve.
26. The standard Pro-Spray models with check valve shall check up to 10 ft (3 m) in elevation change.
27. The pressure-regulated Pro-Spray models with check valve shall check up to 14 ft (4.3 m) in elevation change.
28. When specified with the check valve, the cap shall have “CHECK VALVE” marked on the top.
29. FloGuardTM Technology Description
30. Pressure-regulated Pro-Spray models with check valve shall include the option of a factory-installed FloGuardTM feature installed in the riser to reduce flow in the event of a missing nozzle.
    1. Pro-Spray Dimensions
31. Shrub models
    1. PROS-00
    2. Height = 1.5 in (4 cm)
    3. Inlet size = ½ in
32. PROS00PRS30 and PROS00PRS40
    1. Height = 4.5 in (11 cm)
    2. Inlet size = ½ in
33. PROS-02
    1. Retracted height = 4 in (10 cm)
    2. Pop-up height = 2 in (5 cm)
    3. Exposed diameter = 2.25 in (5.7 cm)
    4. Inlet size = ½ in
34. PROS-03
    1. Retracted height = 5 in (12.5 cm)
    2. Pop-up height = 3 in (7.5 cm)
    3. Exposed diameter = 2.25 in (5.7 cm)
    4. Inlet size = ½ in
35. PROS-04 models
    1. Retracted height = 5.875 in (15.5 cm)
    2. Pop-up height = 4 in (10 cm)
    3. Exposed diameter = 2.25 in (5.7 cm)
    4. Inlet size = ½ in
36. PROS-06 models
    1. Retracted height = 8.75 in (22.5 cm)
    2. Pop-up height = 6 in (15 cm)
    3. Exposed diameter = 2.25 in (5.7 cm)
    4. Inlet size = ½ in
37. PROS-12 models
    1. Retracted height = 16.125 in (41 cm)
    2. Pop-up height = 12 in (30 cm)
    3. Exposed diameter = 2.25 in (5.7 cm)
    4. Inlet size = ½ in
    5. Warranty
       1. 5 year warranty period

**Part 3 – Function and Operation**

1. Operating Pressure
2. The Pro-Spray shall operate from 15 to 100 psi (1.0 to 7.0 bar; 100 to 700 kPa)
3. To activate the pressure-regulator in PRS30 and PRS40 models, a minimum of 10 psi differential is required to achieve the desired output pressure.
   1. Pressure Regulation
4. When specified as PRS30 or PRS40, the sprinkler shall have a pressure-regulating device as an integral part of the pop-up riser.
5. The PRS30 models will prevent fogging or misting of the nozzle spray pattern by maintaining a constant outlet pressure of 30 PSI (2.1 bar; 210 kPa) with inlet pressures of up to 100 PSI (7.0 bar; 700 kPa), regardless of the nozzle installed.
6. The PRS40 models will provide optimal distribution uniformity of the MP Rotator by maintaining a constant outlet pressure of 40 PSI (2.8 ba;, 280 kPa) with inlet pressures of up to 100 PSI (7.0 bar; 700 kPa), regardless of the rotator installed.
   1. System Flushing
7. The flush plug shall allow the system to be flushed before installing the nozzle.
8. The flush plug shall open as the stem extends and close when the stem is in the retracted position, prevent debris from entering the riser.
9. The flush plug shall have directional flushing action that allows the water to escape in only one direction.
10. When specified with the FloGuardTM feature, the flush plug shall include a spacer to keep the FloGuardTM feature deactivated for a complete system flush.
    1. Drain Check Valve
11. For standard Pro-Spray models, the check valve will hold up to 10 ft (3 m) of elevation.
12. For pressure-regulated models, the check valve will hold up to 14 ft (4.3 m) of elevation.
13. The check valve can be factory or field-installed in pop-up models.
    1. FloGuardTM Technology
14. In the event of a missing nozzle, the FloGuard feature shall reduce the flow from the riser to a low-flow 10 ft (3 m) tall stream indicating the need for maintenance.