



## **Bidding Specifications For Grund Marking Systems SPM 106, 107 & 110 Series Engraved Caps**

### **Introduction**

The following paragraphs are bidding specifications for Underhill's Grund Marking System SPM 106, 107 & 110 engraved cap series.

Separate bidding specifications for fitted-disc, snap-in markers, highlighter snap rings or valve box / universal markers can be found on the Underhill's Grund Marking System web pages.

The SPM 106, 107 & 110 series of engraved caps are made to fit a wide variety of Toro, Rain Bird & Hunter golf series sprinkler heads noted in the table below.

<b>SPM Series</b>	<b>Manufacturer</b>	<b>Models</b>
SPM 106	Toro Series	730, 750, 760, 780, 830/850S, 834S, 835S, DT34/35S, 854S, DT54/55, 860S, 880S All FLX and Infinity Series
SPM 107	Rain Bird Series	E900, E950, E700, E750, E500, E550, 700, 751, 51DR
SPM 110	Hunter Series	G800, G900, G90, G95

The number of yardages, background and engraving color can be recorded in the Underhill Excel template found on the following web link:

<http://underhill.us/markets/golf/markingsystems/207-sprinkler-head#forms>

### **Materials**

The SPM 106, 107 & 110 series markers are molded from virgin ABS plastic w/ UV inhibitors. The amount of UV resistance is lessened from dark to light depending on the background color specified.

The caps are molded with the appropriate number of counter-sunk thru-holes to secure the cap to the appropriate sprinkler model re-using the OEM fasteners. The size and placement of the thru-holes are the same as the OEM cap without markings.

Up to four background colors (black, white, yellow or purple) of the engraved cap can be specified depending on the SPM 106, 107 or 110 series specified. A contrasting engraved color can then be specified, (white, black, yellow, red, blue, green or purple). Colors will vary by SPM series. Verify the corresponding color combinations w/ Underhill's website, <http://underhill.us/markets/golf/markingsystems/207-sprinkler-head#models>.

Single, double or triple yardage distances can be specified for each SPM series and can be mixed and matched per the customer's preference. The depth of engraving is 1/32" and should be of a consistent depth within each marker.

### **Installation**

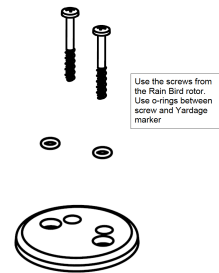
Confirm the engraved yardage on the cap matches a corresponding sprinkler plan with locations and yardages. It might be helpful by placing flags adjacent to each head to receive a yardage marker to make installation easier.

**Note:** Avoid using battery powered impact drivers or screw-gun as the torque settings are commonly too high or strong. It is recommended using a manual Philips head screwdriver with the correctly sized tip depending on the make and model of sprinkler head.

Confirm the top of the sprinkler cap is clean to ensure proper fit. Depending on the manufacturer, "O-rings" maybe included in the installation kit and are part of the installation procedures. Specific orientation of the cap may also be required, again based on the manufacturer, model number.

The line drawing to the right reflects a diagram that could be included with installation instructions depending on the manufacturer and model.

Remove the existing cap from the sprinkler body and save the OEM fasteners as part of this task. Install the engraved cap in the same orientation aligning the thru-holes of the cap to sprinkler. Re-install the OEM fasteners to secure the cap. Do not over-tighten the fasteners when securing to the sprinkler.



Once a hole is complete, consider operating heads and visually confirm heads are operating as expected. Make adjustments as needed.

The Grund Marking System engraved cap series are manufactured and distributed by Underhill International Corporation, Mission Viejo, CA.

### **End of Specification**