

## General Specialties Recommendations for Pole Height and Dimension for Top of Pole Mounts R-16

We cannot guarantee a standard 1.67 safety factor if these recommendations are not observed. Since we cannot assess each customer's individual site and conditions, a professional installer and the local building department should be consulted for the safest and most effective installation.

UPM Model	Post Size  (Sch = Schedule, or thickness of pipe wall)	Max Pole Height Above Concrete Base W/ Array @ 45° Tilt	Clearance Between top of Concrete and Lowest Point on Array @ 45° Tilt	Max Pole Height Above Concrete Base W/ Array @ 60° Tilt	Clearance Between top of Concrete and Lowest Point on Array @ 60° Tilt	Max Pole Height Above Concrete Base W/ Array @ 90° Tilt <b>See Footnote 2</b>	Clearance Between top of Concrete and Lowest Point on Array @ 90° Tilt <b>See Footnote 2</b>
UPM 3X Standard stock Tee socket size 4"	4" Sch 40 4½"OD	9' 3"	7' 3"	7' 5"	4' 10"	6' 4"	3' 2"
	4" Sch 80 4½"OD	12' 6"	10' 6"	10'	7' 5"	8' 6"	5' 4"
UPM 4X Standard stock Tee socket size 4"	4" Sch 40 4½"OD	7' 6"	4' 8"	6'	2' 6"	5' 3"	1' 1"
	4" Sch 80 4½"OD	10'	7' 2"	8'	4' 6"	6' 9"	2' 7"
UPM 6X Standard stock Tee socket size 5"	5" Sch 40 5 9/16"OD	7' 9"	5' 9"	6' 3"	3' 8"	5' 4"	2' 2"
	5" Sch 80 5 9/16"OD	10' 9"	8' 9"	8' 9"	8' 9"	7' 6"	4' 4"
UPM 6X Custom Standard stock Tee socket size 5"	5" Sch 40 5 9/16"OD	8' 9"	5' 9"	7'	3' 4"	5' 10"	1' 1"
	5" Sch 80 5 9/16"OD	12'	9'	9' 9"	6' 1"	8' 5"	3' 8"
UPM 8X Standard stock Tee socket size 6"	6" Sch 40 6⅝" OD	10'	7' 2"	8'	4' 6"	6' 9"	2' 7"
	6" Sch 80 6⅝" OD	14' 6"	11' 8"	11' 9"	8' 3"	10' 3"	6' 1"
UPM 10X Standard stock Tee socket size 6"	6" Sch 40 6⅝" OD	7' 9"	4' 9"	6' 3"	2' 6"	See Footnote 1	See Footnote 1
	6" Sch 80 6⅝" OD	11' 6"	8' 6"	9' 3"	5' 6"	8'	2' 8"
UPM 10XHD Standard stock Tee socket size 6", optional upgrade to 8" available	6" Sch 40 6⅝" OD	6'	1' 9"	See Footnote 1	See Footnote 1	See Footnote 1	See Footnote 1
	6" Sch 80 6⅝" OD	8' 9"	4' 6"	7'	1' 8"	See Footnote 1	See Footnote 1
	8" Sch 40 8⅝" OD	12' 3"	8'	9' 9"	4' 5"	8' 6"	2' 1"
	8" Sch 80 8⅝" OD	17' 9"	13' 6"	14' 6"	9' 2"	12' 6"	6' 1"

UPM 12X HD <u>9 MODULES:</u> <u>6 rails,</u> <u>3 columns of 3 panels.</u> Standard stock Tee socket size 8", optional upgrade to 10" available	8" Sch 40 8 <sup>5</sup> / <sub>8</sub> " OD	10' 6"	7' 6"	8' 6"	4' 10"	7' 4"	11"
	8" Sch 80 8 <sup>5</sup> / <sub>8</sub> " OD	15' 9"	12' 9"	12' 9"	9' 1"	11'	6' 3"
	10" Sch 40 10 <sup>3</sup> / <sub>4</sub> " OD	19' 3"	16' 3"	15' 9"	12' 1"	13' 6"	8' 9"
UPM 12X HD <u>10 MODULES:</u> <u>6 rails,</u> <u>3,4,3 panels.</u> Standard stock Tee socket size 8", optional upgrade to 10" available	NO 8" Sch 40						
	8" Sch 80 8 <sup>5</sup> / <sub>8</sub> " OD	14'	9' 9"	11' 6"	6' 2"	9' 9"	3' 4"
	10" Sch 40 10 <sup>3</sup> / <sub>4</sub> " OD	17' 3"	13'	14' 2"	8' 6 10	12' 3"	5' 10"
UPM 12X HD CUSTOM <u>8 MODULES:</u> <u>4 rails,</u> <u>2 columns of 4 panels.</u> Standard stock Tee socket size 8", optional upgrade to 10" available	NO 8" Sch 40						
	8" Sch 80 8 <sup>5</sup> / <sub>8</sub> " OD	15' 3"	11'	12' 5"	7' 1"	10' 8"	4' 8"
	10" Sch 40 10 <sup>3</sup> / <sub>4</sub> " OD	18' 9"	14' 6"	15' 3"	9' 11"	13'	6' 7"
UPM 15X <u>12 MODULES:</u> <u>6 rails,</u> <u>3 columns of 4 panels.</u> Standard stock Tee socket size 8", optional upgrade to 10" available	NO 8" Sch 40						
	8" Sch 80 8 <sup>5</sup> / <sub>8</sub> " OD	11' 9"	7' 6"	9' 6"	4' 2"	8' 3"	1' 10"
	10" Sch 40 10 <sup>3</sup> / <sub>4</sub> " OD	14' 6"	10' 3"	11' 9"	6' 5"	10'	3' 7"
	10" Sch 80 10 <sup>3</sup> / <sub>4</sub> " OD	21'	16' 9"	18' 3"	12' 11"	15' 8"	9' 3"

UPM 15X <u>10 MODULES:</u> <u>6 rails,</u> <u>3 columns of</u> <u>3,4,3 panels.</u> Standard stock Tee socket size 8", optional upgrade to 10" available	8" Sch 80 8 <sup>5</sup> / <sub>8</sub> " OD no sch 40 for 8"	12' 3"	9' 3"	9' 9"	4' 5"	8' 6"	2' 1"
	10" Sch 40 10 <sup>3</sup> / <sub>4</sub> " OD	14' 9"	11' 9"	12' 2"	6' 10"	10' 6"	4' 1"
	10" Sch 80 10 <sup>3</sup> / <sub>4</sub> " OD	21'	18'	18' 9"	13' 5"	16' 3"	9' 10"
UPM 18X <u>15 MODULES:</u> <u>6 rails,</u> <u>3 columns of 5</u> <u>panels.</u> Standard stock Tee socket size 8", optional upgrade to 10" available	8" Sch 80 8 <sup>5</sup> / <sub>8</sub> " OD no sch 40 for 8"	9' 3"	4'	7' 6"	1' 2"	See Footnote 1	See Footnote 1
	10" Sch 40 10 <sup>3</sup> / <sub>4</sub> " OD	11' 5"	6' 2"	9' 3"	2' 10"	See Footnote 1	See Footnote 1
	10" Sch 80 10 <sup>3</sup> / <sub>4</sub> " OD	17' 9"	12' 6"	14' 3"	7' 10"	12' 3"	4' 7"
UPM 18X <u>12 MODULES:</u> <u>6 rails,</u> <u>3 columns of 4</u> <u>panels.</u> Standard stock Tee socket size 8", optional upgrade to 10" available	8" Sch 80 8 <sup>5</sup> / <sub>8</sub> " OD no sch 40 for 8"	10'	5' 9"	8' 2"	2' 10"	7'	0' 7"
	10" Sch 40 10 <sup>3</sup> / <sub>4</sub> " OD	12' 4"	8' 1"	10'	4' 8"	8' 7"	2' 2"
	10" Sch 80 10 <sup>3</sup> / <sub>4</sub> " OD	19' 3"	15'	15' 6"	10' 2"	13' 3"	6' 10"

**Footnote 1:** There is not adequate clearance for these arrays with this size pipe. Use heavier schedule pipe or larger pipe diameter

**NOTE:** For UPMs 12X HD, 15X and 18X, we do not recommend tilting past 65° without using the optional 90° Bracket Kit. This kit fastens the array to the pole below the tee top which is the safest and strongest possible attachment for the 90° vertical position. Most mounts do not need to be tilted past 65° unless they are in far north latitudes or in areas with high snow loads (anything over 1').