

PFISTERER



Warning Spheres

For Making Overhead Conductors Clearly Visible

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Warning Spheres

Best Solution for Large Distance and Long Term Visibility

General

Warning Spheres are installed on overhead conductors to alert low flying airplanes and helicopters of the obstacle.

They are generally placed near airports and on elevated spans crossing rivers, lakes, fjords, valleys, roads, railways, construction sites and pipelines. Other locations are: near military bases, police stations, hospitals, helicopter routes and other low flying areas. Warning Spheres are attached on the uppermost conductors, shieldwires or on the top of power line towers.

Key Data

PFISTERER has been developing Warning Spheres since 1964 to provide markers that can guarantee long term color stability and reliable performance.

The warning device consist of two hemispheres attached to the overhead conductor by two bolted clamps. The key element of the Warning Sphere is UV and ozone resistant material polyethylene. A special installation mechanism allows a single linesman to easily install the Warning Sphere.

Moreover a properly designed clamp structure avoids deformation of the sphere material due to tightening of the bolts.

Due to the application of a stainless steel safety plate, clamp loosing is impossible.

The high rigidity of the spheres prevents acoustic noises including rattle between the two hemispheres and vibration fatigue problems, for the whole life time of the overhead conductor on which they are installed.

The PFISTERER Warning Spheres fulfill the requirements of the International Civil Aviation Organization (ICAO) guidelines for marking obstacles.



Warning Sphere

Features

- The diameter of the sphere is 600 mm
- The Warning Sphere can be delivered in three different type of UV and ozone resistant colors (red, orange and white). The visibility of the Warning Sphere is enhanced by the choice of colours that contrast with the natural background
- Two-colour spheres or alternating white and orange or red spheres can be used when the natural background colour changes with seasons, to guarantee constant visibility
- The jaws are made of aluminium and feature a grooved channel, which makes slipping impossible
- The Warning Spheres can be used for transmission and distribution lines of any voltage without any adjustment of the insulating distances
- The Warning Spheres are made of polyethylene
- For aluminium based conductors and OPGW shield wires we recommend to install the Warning Spheres over armour rods
- Drain holes prevent accumulation of rain or condensed water inside the spheres
- Reduction of transport and storing costs due to intelligent stacking is possible



Clamp structure



Different coloured hemispheres



Intelligently stacked hemispheres ready for transport

Order Information

Conductor Range
[mm]



	Orange	Red	White	Red / White	Orange / White
Ø 9.3 - 10.6	180 539-152	180 539-252	180 539-352	180 539-452	180 539-552
Ø 10.6 - 11.9	180 539-153	180 539-253	180 539-353	180 539-453	180 539-553
Ø 11.9 - 13.2	180 539-154	180 539-254	180 539-354	180 539-454	180 539-554
Ø 13.2 - 14.5	180 539-155	180 539-255	180 539-355	180 539-455	180 539-555
Ø 14.5 - 15.8	180 539-156	180 539-256	180 539-356	180 539-456	180 539-556
Ø 15.8 - 17.1	180 539-157	180 539-257	180 539-357	180 539-457	180 539-557
Ø 17.1 - 18.4	180 539-158	180 539-258	180 539-358	180 539-458	180 539-558
Ø 18.4 - 19.7	180 539-159	180 539-259	180 539-359	180 539-459	180 539-559
Ø 19.7 - 21.0	180 539-160	180 539-260	180 539-360	180 539-460	180 539-560
Ø 21.0 - 22.3	180 539-161	180 539-261	180 539-361	180 539-461	180 539-561
Ø 22.3 - 23.6	180 539-162	180 539-262	180 539-362	180 539-462	180 539-562
Ø 23.6 - 24.9	180 539-163	180 539-263	180 539-363	180 539-463	180 539-563
Ø 24.9 - 26.2	180 539-164	180 539-264	180 539-364	180 539-464	180 539-564
Ø 26.2 - 27.5	180 539-165	180 539-265	180 539-365	180 539-465	180 539-565
Ø 27.5 - 28.8	180 539-166	180 539-266	180 539-366	180 539-466	180 539-566
Ø 28.8 - 30.1	180 539-167	180 539-267	180 539-367	180 539-467	180 539-567
Ø 30.1 - 31.4	180 539-168	180 539-268	180 539-368	180 539-468	180 539-568
Ø 31.4 - 32.7	180 539-169	180 539-269	180 539-369	180 539-469	180 539-569
Ø 32.7 - 34.0	180 539-170	180 539-270	180 539-370	180 539-470	180 539-570
Ø 34.0 - 35.3	180 539-171	180 539-271	180 539-371	180 539-471	180 539-571
Ø 35.3 - 36.6	180 539-172	180 539-272	180 539-372	180 539-472	180 539-572
Ø 36.6 - 37.9	180 539-173	180 539-273	180 539-373	180 539-473	180 539-573
Ø 37.9 - 39.2	180 539-174	180 539-274	180 539-374	180 539-474	180 539-574
Ø 39.2 - 40.5	180 539-175	180 539-275	180 539-375	180 539-475	180 539-575
Ø 40.5 - 41.8	180 539-176	180 539-276	180 539-376	180 539-476	180 539-576
Ø 41.8 - 43.1	180 539-177	180 539-277	180 539-377	180 539-477	180 539-577
Ø 43.1 - 44.4	180 539-178	180 539-278	180 539-378	180 539-478	180 539-578
Ø 44.4 - 45.7	180 539-179	180 539-279	180 539-379	180 539-479	180 539-579
Ø 45.7 - 47.0	180 539-180	180 539-280	180 539-380	180 539-480	180 539-580
Ø 47.0 - 48.3	180 539-181	180 539-281	180 539-381	180 539-481	180 539-581
Ø 48.3 - 49.6	180 539-182	180 539-282	180 539-382	180 539-482	180 539-582
Ø 49.6 - 50.9	180 539-183	180 539-283	180 539-383	180 539-483	180 539-583
Ø 50.9 - 52.2	180 539-184	180 539-284	180 539-384	180 539-484	180 539-584
Ø 52.2 - 53.5	180 539-185	180 539-285	180 539-385	180 539-485	180 539-585
Ø 53.5 - 54.8	180 539-186	180 539-286	180 539-386	180 539-486	180 539-586

Materials

- Jaw: aluminium alloy with grooved channel
- Hemisphere: coloured polyethylene
- Plates: steel – hot dip galvanised
- Screws: steel – hot dip galvanised
- Safety plate: stainless steel

Clamp option

Component code:

S Stainless steel bolts

Orders with clamp option

Orders for clamp option must be indicated with the component code of the desired option at the end of the relevant part number.

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