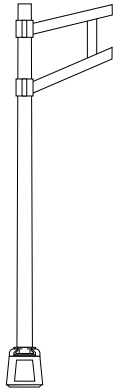


### TRAFFIC POLE NUMBERING LOGIC

#### SHAFT

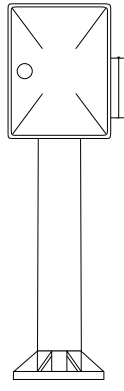
Pedestal Shaft Designation	Bottom Outside Diameter (In.)	Top Outside Diameter (In.)	Wall Thickness (In.)	Assembly Height (In.)	Anchorage (In.)	Base Designation (In.)
SP	6=6"	45=4 1/2"	5=.125"	Example	0=No Anchorage	6" O.D. Shaft Bottom
Signal Pedestal	80=8"	50=4 15/16"	6=.156"	0300=3'	1=3/4" x 15"	A=SB-2
Post Assembly	10=10"	66=6 5/8"	8=.188"	0906=9-6"	2=3/4" x 25"	C=SB-3
CP	12=12"	80=8"	9=.219"	1200=12'	3=1" x 36"	F=HBS-6
Control Box		10=10"	0=.250"	1703=17'-3"	4=1" x 48"	G=TBJ-6
Pedestal Box			2=.312"	1810=18'-10"	5=1 1/4" x 48"	P=PB-1
Assembly			5=.375"	2306=23'-6"		8" O.D. Shaft Bottom
FP				2406=24'-6"		A=SB-2
Fire & Police						D=SB-4
Call Box Pedestal						H=TB-1 Rotatable
Post Assembly						I=TB-1 SB-2/TB-2C
SMS						J=TB-1 SB-4/TB-2C
Aluminum Single Member Assembly						K=SB-4/TB-2A
S						N=SB-2/TB-2A
Aluminum Traffic Shaft Assembly						W=TB-1 Welded
						10" O.D. Shaft Bottom
						A=SB-2
						E=SB-4
						J=SB-4/TB-2C
						K=SB-4/TB-2A
						L=SB-2/TB-4
						12" O.D. Shaft Bottom
						A=SB-1
						B=SB-4
						M=SB-4/TB-4



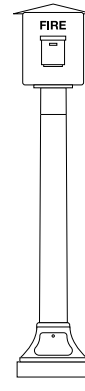
S



SP



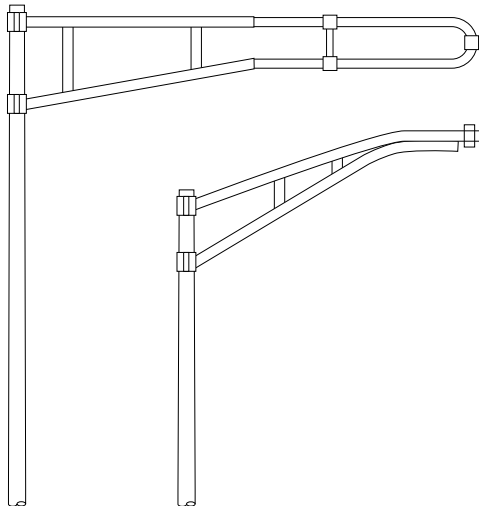
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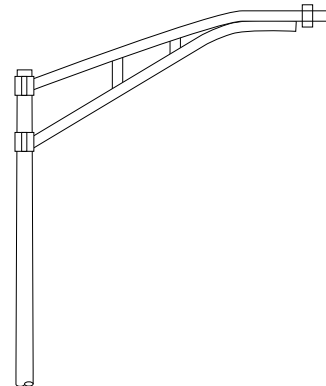
FP

#### ARM

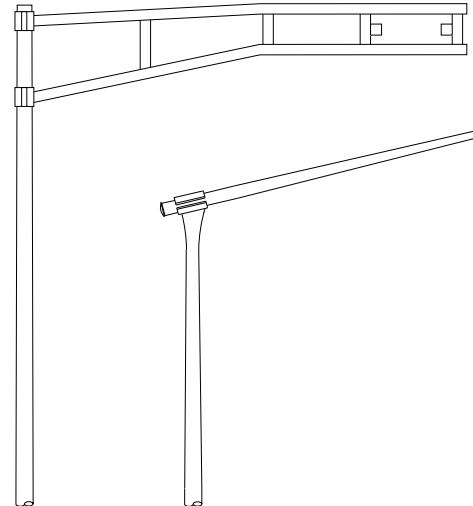
Arm Type	Arm Length (Ft.)	Arm Size (In.)	Wall Thickness (In.)	Clamp Size (In.)
MA	12=12'	35=3 1/2"	5=.125"	66=6 5/8"
Mast Arm Assembly	15=15'	40=4"	6=.156"	80=8"
TR	18=18'	50=5"	8=.188"	10=10"
Trombone Arm Assembly (Round End)	20=20'	60=6"	9=.219"	
TS	25=25'	70=7"	0=.250"	
Trombone Arm Assembly (Square End)	30=30'			
SMA	35=35'			
Single Member Arm Assembly				



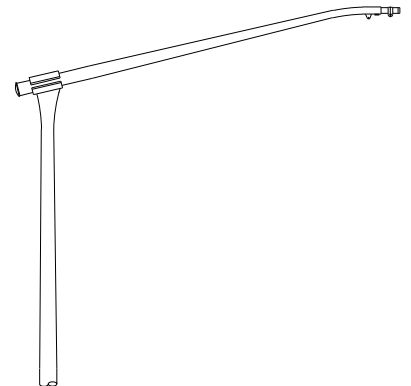
TR



MA



TS



SMA

# Flagpoles, Inc.

## PRINCIPAL FEATURES

### Principal Features

#### Seamless, One-piece Tapered Shaft

Quick erection from seamless, wrought aluminum tubing, 6063-T6, and free from longitudinal seams or welds.

#### Conical, Elliptical Arm

Quick erection from seamless, wrought aluminum tubing, 6063-T6 to provide rigidity and stability.

#### Selection of Base

Several types of bases are available—shoe, handhole, transformer, combinations of shoe and transformer. A base to fit any requirements.

#### Quick Installation

Quick erection and wiring due to complete welded assembly. Provision for wiring is provided. Minimum hardware.

#### Clean Appearance

Trim, uncluttered design, featuring a gently tapered shaft, and arm members pleasing in their elliptical, tapered silhouette.

#### Freedom from Maintenance

Flagpoles and K products are noted for their year-after-year trouble-free support. Even under severe weather conditions or seacoast atmospheres, there's no need for painting or periodic maintenance.

#### Specifications

Flagpoles and K furnishes and installs complete, full-aluminum standard supports with truss-type members for mounting horizontal or vertical over-the-roadway traffic signals. Complete assembly as manufactured by P&K Pole Products, Inc., Newark, New Jersey.

#### Shaft

The shaft shall be model \_\_\_\_\_, fabricated from one-piece, seamless extruded tubing of 6063-T6 wrought aluminum alloy as specified by the Aluminum Association or equal. The shaft shall be 17", 3" inches in height (for taller shaft, specify height required). It shall be tapered by \_\_\_\_\_-inch working from \_\_\_\_\_-inch O.D. to \_\_\_\_\_-inch O.D. After tapering and welding, the entire shaft assembly shall be heat-treated (post aged) to a T6 temper. It shall be completely free from welds except at base. It shall be given a satin-brush finish and wrapped for shipment.

#### Base

The base shall be permanent mold (or sand) casting of aluminum alloy 356-T6. It shall be (shoe) andhole (transformer) type model. The base shall be welded to shaft.

#### Arm

The arm shall be model \_\_\_\_\_, fabricated from seamless, extruded aluminum tubing of 6063-T6 wrought aluminum alloy as specified by the Aluminum Association or equal. Arm shall be a one-piece, welded assembly with top and bottom members joined by vertical braces. Arm members shall be both tapered and elliptical. Arm shall have 6061-T6 or 6063-T6 extruded aluminum shaft clamps at one end and provision for signal connection at other end. Arms of 5" O.D. or less shall have vertical braces fabricated from aluminum tubing with 2 3/8" O.D. and .140" wall and ellipsized to 1 3/4" minor dimension. Arms of 6" O.D. or greater shall have vertical braces fabricated from aluminum tubing with 3" O.D. and .188" wall. After tapering and welding, the complete arm assembly shall be heat-treated (post aged) to a T6 temper.

#### Anchorage

Anchorage shall consist of four high-strength, steel anchor bolts, each with a minimum yield strength of 50,000 psi. Each bolt shall have right-angle leg and the threaded end hot-dipped galvanized. Diameter of bolt shall be (15) (25) (1 1/4") (1 1/2").

**Design:** Complete assembly shall be able to withstand the force of the designed wind without excessive deflection, vibration or flutter, or without permanent deformation or other structural failure.

**Welding:** All welding of aluminum shall be by the inert gas, shielded-arc method. All welding shall be performed by welders certified by an independent testing laboratory in accordance with the requirements of the latest edition of the ASTM Boiler and Pressure Vessel Code, Section IX. Welding shall be carefully checked by manufacturer by visual checking of all welds, and by programmed proof testing of welds, and by periodic destructive testing to ensure good workmanship and full compliance to specifications. Fabrication techniques shall comply with documented quality control procedures, conformance to which shall be monitored by fully qualified inspectors utilizing correctly calibrated equipment.

#### Procedure for Determining Traffic Catalog Designations Required

##### Example

30'-0" Mast arm and shaft assembly design-80 MPH wind.

##### Signal Loading

2-Way 3 sect. 12" HDS. Free swinging at end of arm.  
1-way 3 sect. 12" HDS fixed 10' back from end of arm.  
1-way 3 sect. 12" HDS fixed 20' back from end of arm.

##### Step 1.

Ascertain projected signal areas for given signals from "Traffic signal projected area" table. 2-Way 3 sect. 12" HDS. Free swinging 4.02 sq. ft. 1-way 3 sect. 12" HDS fixed 4.08 sq. ft.

##### Step 2.

Calculate prorated projected signal area to determine arm member size:

4.02 x (30'-0")/30'	=4.02
4.08 x (30'-10")/30'	=2.72
4.08 x (30'-20")/30'	=1.36
Prorated Projected Area	=8.10 sq. ft.

##### Step 3.

Choose arm member size required to support prorated area from respective traffic assembly catalog page. For 8.10 sq. ft. use: 6: O.D. X .156 wall mast arm catalog No. MA3060610 (actual area=8.10; less than 9.2).

##### Step 4.

Calculate total projected area to determine shaft size required:

	=4.02
	=4.08
	=4.08
Total Projected Area	=12.18 sq. ft.

##### Step 5.

Choose shaft size required to support total projected area from respective traffic assembly catalog page. For 12.18 sq. ft. use: 12: O.D. X .250 wall traffic shaft catalog No. S121001810 (actual area=12.18; less than 12.6).

##### Step 6.

Add respective catalog designation to shaft number for anchor bolts and base type required (for this example assume transformer base is needed). Refer to "Aluminum Traffic Pole Base Data" sheet for possible alternatives.

##### Step 7.

Final catalog designation for ordering purposes: MA3060610/S1210018105M.