

Steel Poles



STS SQUARE TAPERED STEEL

Catalog #		Type
Project		
Comments		Date
Prepared by		

FEATURES

- ASTM Grade steel base plate with ASTM A366 base cover
- Hand hole assembly 3" x 5" on STS poles
- 20'-50' mounting heights
- Drilled or tenon (specify)

DESIGN CONSIDERATIONS - VIBRATIONS AND NON-GROUND MOUNTED INSTALLATIONS

The information contained herein is for general guidance only and is not a replacement for professional judgment. Design considerations for wind-induced vibrations and non-ground mounted installations (e.g., installations on bridges or buildings) are not included in this document. Consult with a professional, and local and federal standards, before ordering to ensure product is appropriate for the intended purpose and installation location. Refer to the Cooper Lighting Solutions Light Pole White Paper for risk factors and design considerations. [Learn more.](#)

NOTE: The Limited Warranty for this product specifically excludes fatigue failure or similar damage resulting from vibration, harmonic oscillation or resonance.

Specifications and dimensions subject to change without notice. Consult your lighting representative at Cooper Lighting Solutions or visit www.cooperlighting.com for available options, accessories and ordering information.

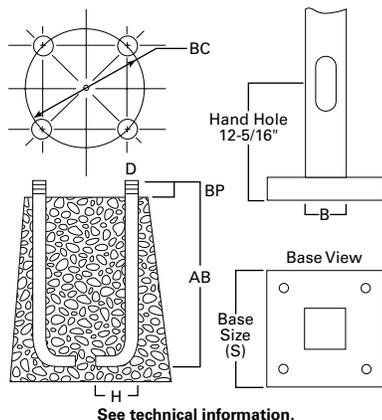
ORDERING INFORMATION

SAMPLE NUMBER: STS5A20SF21XE

Product Family	Shaft Size (Inches) ¹	Wall Thickness (Inches)	Mounting Height (Feet)	Base Type	Finish	Mounting Type	Number and Location of Arms	Arm Lengths (Feet)	Options (Add as Suffix)
STS=Square Tapered Steel	5=5" 6=6" 7=7" 8=8" 9=9" Steel; 6-3/4" Aluminum	A=0.120" ² D=0.180"	20=20' 25=25' 30=30' 35=35' 39=39' 45=45' 50=50'	S=Square Steel Base	F=Dark Bronze G=Galvanized Steel J=Summit White K=Carbon Bronze L=Dark Platinum R=Hartford Green S=Silver T=Graphite Metallic V=Grey W=White X=Custom Color Y=Black	2=2-3/8" O.D. Tenon (4" Long) 3=3-1/2" O.D. Tenon (5" Long) 4=4" O.D. Tenon (6" Long) 9=3" O.D. Tenon (4" Long) 6=2-3/8" O.D. Tenon (6" Long) 7=4" O.D. Tenon (10" Long) A=Type A Drilling C=Type C Drilling E=Type E Drilling F=Type F Drilling G=Type G Drilling J=Type J Drilling K=Type K Drilling M=Type M Drilling N=Type N Drilling R=Type R Drilling S=Standard Upsweep Arm ⁷ Z=Type Z Drilling	1=Single 2=2 at 180° 3=Triple ³ 4=4 at 90° 5=2 at 90° X=None	X=None 2=2' 3=2.5' 4=4' 6=6' 8=8'	A=1/2" Tapped Hub ⁴ B=3/4" Tapped Hub ⁴ C=Convenience Outlet ⁵ E=GFCl Convenience Outlet ⁴ G=Ground Lug H=Additional Hand Hole ⁶ V=Vibration Dampener

NOTES: 1. All shaft sizes nominal. 2. Not available with 9" shaft size. 3. Square poles are 3 at 90°, round poles are 3 at 120°. 4. Tapped Hub is located 5" below the pole top and on the same side of pole as hand hole, unless specified otherwise. 5. Outlet is located 4" above base and on same side of pole as hand hole, unless specified otherwise. Receptacle not included, provision only. 6. Additional hand hole is located 12" below pole top and 90° from standard hand hole location, unless otherwise specified. 7. Arm must be ordered separately.

ANCHORAGE DATA



Pole	Anchor Bolt and Template Package	Template Only	Bolt Circle (inches)	Anchor Bolt Size (inches)
STS5A20S	AB100SET	ABT-51	10-3/4	1 x 36 x 4
STS6A25S	AB100SET	ABT-53	12	1 x 36 x 4
STS6A30S	AB100SET	ABT-54A	12-1/2	1 x 36 x 4
STS7D30S	AB100SET	ABT-56E	13-1/2	1 x 36 x 4
STS7A35S	AB100SET	ABT-55	13	1 x 36 x 4
STS7D35S	AB100SET	ABT-56E	13-1/2	1 x 36 x 4
STS7A39S	AB100SET	ABT-56A	13-1/2	1 x 36 x 4
STS7D39S	AB100SET	ABT-56E	13-1/2	1 x 36 x 4
STS8D45S	AB100SET	ABT-58E	14-1/2	1 x 36 x 4
STS9D50S	AB125SET	ABT-61	16	1.25 x 42 x 6

Effective Projected Area (At Pole Top)

Mounting Height (Feet)	Catalog Number ^{1,2}	Wall Thickness (Inches)	Base Square ³ (Inches)	Bolt Circle Diameter (Inches)	Anchor Bolt Projection ³ (Inches)	Shaft Diameter at Base ³ (Inches)	Shaft Taper (Inches/Feet)	Anchor Bolt Diameter x Length x Hook (Inches)	Net Weight (Pounds)	Maximum Effective Projected Area (Square Feet) ⁴				Max. Fixture Load - Includes Bracket (Pounds)
										80 mph	90 mph	100 mph	110 mph	
MH			S	BC	BP	B		D x AB x H						
20	STS5A20S	0.120	10-3/4	10-3/4	4	5.25	0.11	1 x 36 x4	155	18.0	13.8	10.7	9.0	225
25	STS6A25S	0.120	11-1/2	12	4-1/8	6.00	0.11	1 x 36 x4	205	16.8	12.6	9.5	7.5	188
30	STS6A30S	0.120	11-7/8	12-1/2	4-1/8	6.41	0.11	1 x 36 x4	260	13.6	9.8	7.0	6.0	150
30	STS7D30S	0.180	12-5/8	13-1/2	4-1/2	7.13	0.11	1 x 36 x4	431	27.4	21.6	17.3	14.0	350
35	STS7A35S	0.120	12-1/4	13	4-1/8	6.81	0.11	1 x 36 x4	305	10.7	7.3	4.8		120
35	STS7D35S	0.180	12-5/8	13-1/2	4-1/2	7.13	0.11	1 x 36 x4	475	23.4	17.4	13.0	10.0	250
39	STS7A39S	0.120	12-5/8	13-1/2	4-1/8	7.18	0.11	1 x 36 x4	345	8.6	5.4	3.0		75
39	STS7D39S	0.180	12-5/8	13-1/2	4-1/2	7.13	0.11	1 x 36 x4	500	19.3	14.2	10.4	8.0	200
45	STS8D45S	0.180	13-3/8	14-1/2	4-1/2	7.88	0.11	1 x 36 x4	620	16.0	11.1	7.4	5.0	125
50	STS9D50S	0.180	15-1/2	16	5	8.81	0.11	1-1/4 x 42 x 6	780	19.4	13.2	8.7	5.0	125

NOTES:

1. Catalog number includes pole with hardware kit. Anchor bolts not included. Before installing, make sure proper anchor bolts and templates are obtained.
2. Tenon size or machining for rectangular arms must be specified. Hand hole position relative to drill location.
3. Shaft size, base square, anchor bolts and projections may vary slightly. All dimensions nominal.
4. EPAs based on shaft properties with wind normal to flat. EPAs calculated using base wind velocity as indicated plus 30% gust factor.

VIBRATION

Vibrations may cause damage to structures, including poles. Vibrations are unpredictable, and there are many factors and variables that can cause damaging vibrations. Many wind conditions exist that can create damaging vibrations to poles and luminaires, such as constant winds between 10-30 mph. Although all pole types can experience vibration, straight square poles seem to be most prone. Vibration dampers and/or a round tapered design may be used to mitigate damage from vibrations, but there is no guarantee damaging vibrations will be prevented. Vibration dampers are not included with this pole but can be ordered separately. Consult with a professional, and local and federal standards, to ensure this pole is appropriate for the intended purpose and installation location. Refer to Cooper Lighting Solutions' Light Pole White Paper for risk factors and design considerations.

MAINTENANCE

Perform inspections periodically. A prudent inspection schedule would be: one week after installation, one month after installation, yearly after installation, and following any major wind event. During the inspection, check the poles for cracks. If cracks are detected, remedial action is required. Recheck anchor bolt torques and re-tighten according to the recommended torque values. Check for missing covers and pole caps and replace as necessary. Check the pole for corrosion and deterioration of the finish. Should there be corrosion or deterioration, take remedial action to correct.

WARNING: Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to pole white paper WP513001EN for additional support information. Before installing, make sure proper anchor bolts and templates are obtained. The use of unauthorized accessories such as banners, signs, cameras or pennants for which the pole was not designed voids the pole warranty and may result in pole failure causing serious injury or property damage. Information regarding total loading capacity can be supplied upon request. The pole warranty is void unless poles are used and installed as a complete pole and luminaire combination. This warranty specifically excludes failure as the result of a third party act or omission, misuse, unanticipated uses, fatigue failure or similar phenomena resulting from induced vibration, harmonic oscillation or resonance associated with movement of air currents around the product.

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