



A Safe Fleet Brand

# PARTS SPECIFICATIONS

## ManSaver Safety Gate and Stanchion For Toll Plazas

FRC P/N	Description	Material
<b>MSA600</b>	<b>ManSaver Safety Gate</b>	
MSA110	ManSaver Bar	Aluminum Tube, 6061-T6, 2" O.D. x 1/8" W., Tensile Strength 45k PSI
	Screw, Flat Cap Head	5/16-18 X 1", ASTM F835 Alloy Steel, RC-38-43, Tensile Strength 160k PSI
	Chain and Spring Assembly	Stainless Steel
	Knuckle	Aluminum Bronze Casting, A020, Tensile Strength 100k PSI
	Pin	Stainless Steel, 3/8" O.D., 17-4 PH, H900, Tensile Strength 198k PSI
MS-15	Padding and Cover	
	Padding	Rubatex Closed Cell Foam
	Cover	Yellow, Rip Stop Vinyl, 15-19 Mil., 13 Oz.
	Label	PUSH - PULL, Red on Yellow, Laminated Vinyl PUSH - LIFT, Red on Yellow, Laminated Vinyl
X-MS-63	Slider Mount	Aluminum, 6061-T6
	Screw, Flat Socket Cap	5/16-18 x 1", w/Nylon Patch
	Screw, Socket Cap	1/4-20 x 3/4", w/Nylon Patch
<b>MSA610</b>	<b>Upright Stanchion</b>	
X-MS-64	Stanchion	Aluminum Extrusion, 6063-T6, Anodized, 3" Square, 3/16" Wall, Tensile Strength 27k PSI
X-MS-65	Stanchion Base	Aluminum, 319 Cast, Tensile Strength 23k PSI
XM-MS-62-001	Stanchion Cap	Aluminum, AL 319 Cast,
	Eye Bolt	1/4-20 X 7/8", Turned Zinc
	Reflective Tape	1" Wide, Yellow, Contact Adhesive
	Common Hardware	18-8 Stainless Steel

### Design Parameters

350 lb horizontal force located 20" from hinge on horizontal safety bar resulting in the following:

Mounting Bolts		3555 lbs	Safety Factor 2.3:1
Hinge Pins		7600 lbs	Safety Factor 1.7:1
Horiz Tube	Max Stress	20,416 PSI	Safety Factor 2.2:1
Hinge Assembly	Max Stress	26,666 PSI	Safety Factor 3.8:1
Vertical Column	Max Stress@bottom	10,130 PSI	Safety Factor 2.7:1
Base Mount Casting	Max Stress	14,000 PSI	Safety Factor 1.6:1

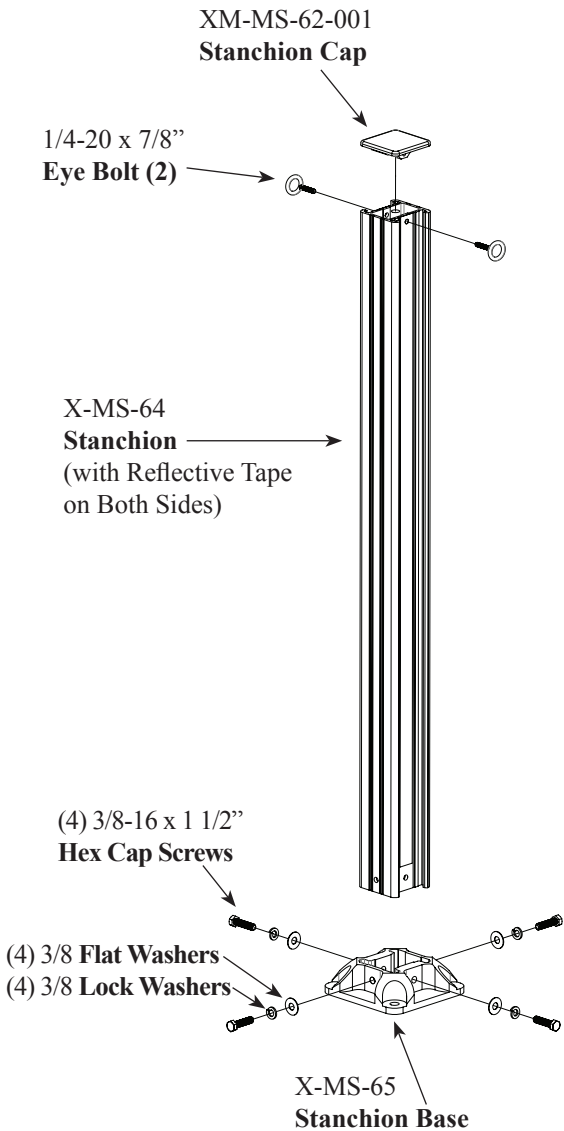
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## ASSEMBLY



**MSA610 Upright Stanchion**  
The MSA610 Upright Stanchion can be used by itself or with a MSA600 Safety Gate mounted on it.



## ManSaver Safety Gate and Stanchion