### NEMA 3R, 4, 12, and 13 **HMI Enclosures**







### **Applications**

Designed to house Human-Machine Interfaces (HMI) and electrical and electronic controls, instruments and components. Provides protection from dust, oil, and water. For outdoor application a drip shield and drain vent is recommended.

### Construction

- 0.075in carbon steel
- · Seams continuously welded and ground smooth
- Reinforced with suspension or pedestal mounting provisions
- Concealed hinge rear access door
- Removable front screw cover for easy installation of cutouts, HMI, and components
- Poured-in-place oil- and water-resistant gasket
- Black 1/4-turn latches
- Operate latches with a screwdriver
- Ground studs on door and body



Your Enclosure Source ®

#### **Finish**

• RAL7035 gray powder coated

### Listings

- NEMA Type 3R, 4, 12, and 13
- cULus Listed Type 3R, 4, and 12 [File E69392]
- CSA Type 3R, 4, and 12
- IEC 60529
- IP66



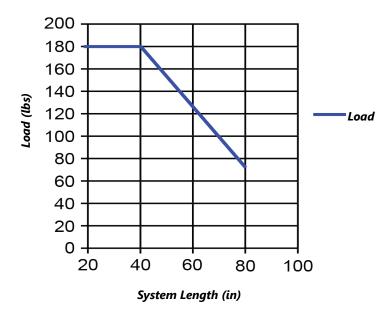
Note: Compatible with Saginaw Aluminum and Adjustable Suspension Arm Components.

NEMA 3R, 4, 12, and 13 HMI Enclosures						
RAL7035	Price	Size HxWxD	Weight	Max Front Cutout Area	Drawing Link	
SCE-12HMI1606LP	\$476.00	12.27 x 16.27 x 7.25 [312 x 413 x 184]	22.30 [10.11]	9.5 x 13.5 [241 x 343]	PDF	
SCE-12HMI1610LP	\$505.00	12.27 x 16.27 x 11.25 [312 x 413 x 286]	22.17 [10.05]	9.5 x 13.5 [241 x 343]	PDF	
SCE-14HMI1806LP	\$517.00	14.27 x 18.27 x 7.25 [362 x 464 x 184]	38.20 [17.32]	11.5 x 15.5 [292 x 394]	<u>PDF</u>	
SCE-14HMI1810LP	\$548.00	14.27 x 18.27 x 11.25 [362 x 464 x 286]	27.00 [12.24]	11.5 x 15.5 [292 x 394]	<u>PDF</u>	
SCE-16HMI2006LP	\$561.00	16.27 x 20.27 x 7.25 [413 x 515 x 184]	32.50 [14.74]	13.5 x 17.5 [343 x 445]	<u>PDF</u>	
SCE-16HMI2010LP	\$592.00	16.27 x 20.27 x 11.25 [413 x 515 x 286]	30.50 [13.83]	13.5 x 17.5 [343 x 445]	<u>PDF</u>	
SCE-20HMI2406LP	\$613.00	20.27 x 24.27 x 7.25 [515 x 616 x 184]	42.80 [19.41]	17.5 x 21.5 [445 x 546]	PDF	
SCE-20HMI2410LP	\$661.00	20.27 x 24.27 x 11.25 [515 x 616 x 286]	50.40 [22.86]	17.5 x 21.5 [445 x 546]	PDF	
Note: Dimensions in inches [millimeters]. Weight in pounds [kilograms]						

### Aluminum Suspension System Overview



## Suspension System without Intermediate Joint



### **Applications**

Designed for use with the SCE HMI enclosures, to allow operators to easily move or position an HMI to an ergonomic and comfortable working position. Made of heavy-duty, reliable construction. Suspension systems can be assembled in a multitude of configurations that allow for machine-, wall-, top-, and floor-mount options.

#### Construction

- Cast aluminum couplings.
- Extruded aluminum tubes (6060T66).
- Rotating couplings have adjustable tensioner brakes to control movement while in use.
- Rigid, durable bearings in all rotating couplings withstand the stress of continuous use.
- Open or closed tube design.
- Open tube allows for easy access to lay in wiring, with easy to install push fit rubber cover.
- Closed tube acts as conduit for feeding wiring.
- Removable access covers on all couplings with 90 degree turn.
- Hardware and gasket included for installation of coupling to tube.

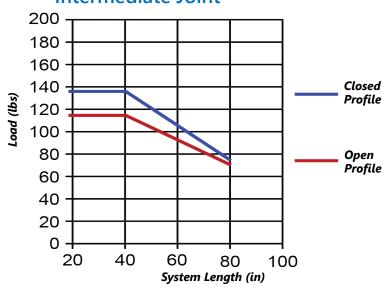
#### **Finish**

• RAL7035 gray powder coated

### Listings

- NEMA Type 3R, 4, 12, and 13
- IEC 60529
- IP66

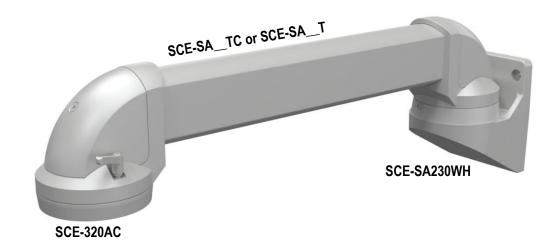
## Suspension System with Intermediate Joint

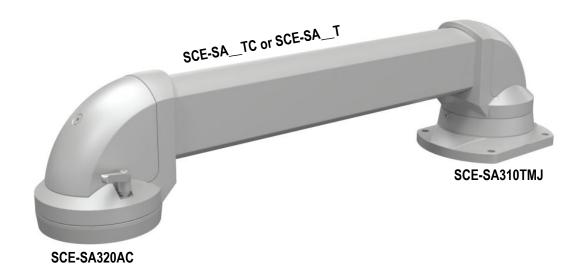


Notes: With Intermediate Joint - Max. Tube Length:
Closed Profile: • 60" distance between wall hinge, top mounted
joint and intermediate joint • 60" distance between angle and
intermediate joint Complete length max. 80"
Open Profile: • 40" distance between wall hinge, top mounted
joint and intermediate joint • 40" distance between angle and
intermediate joint Complete length max. 80"

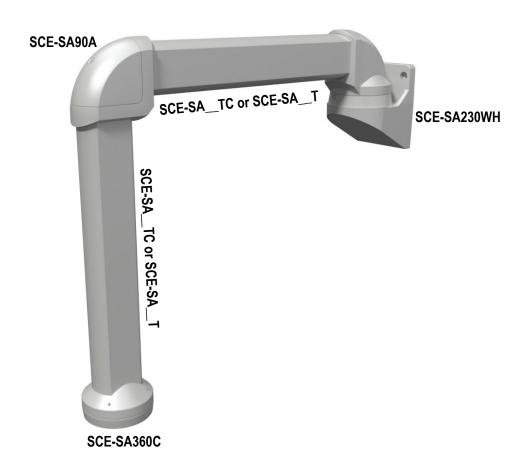
Enclosures: HMI and Suspension Arms tENS-253

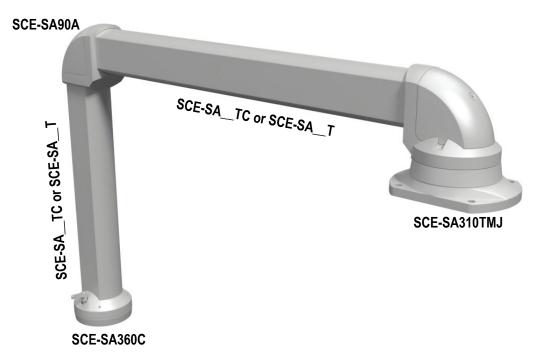




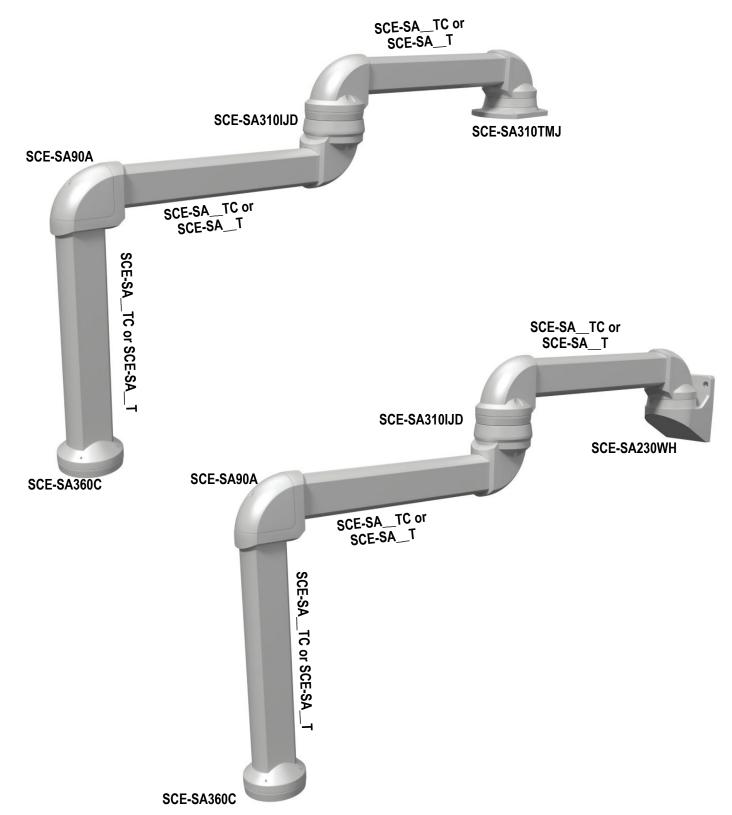




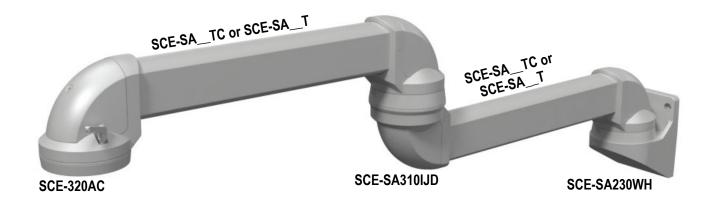




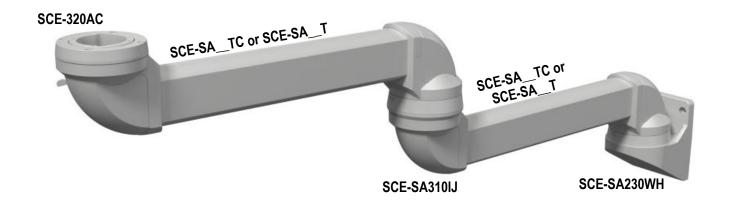






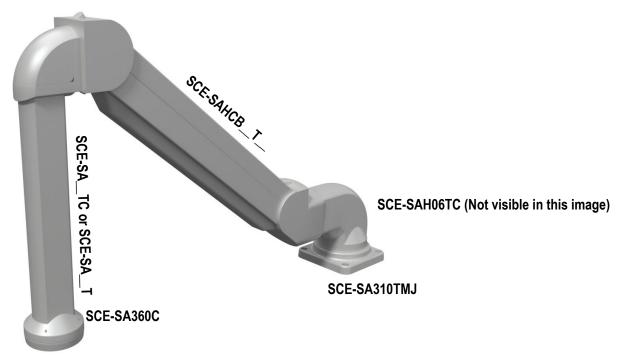


Note: Assemblies demonstrate two enclosure mounting options using the same suspension arm components

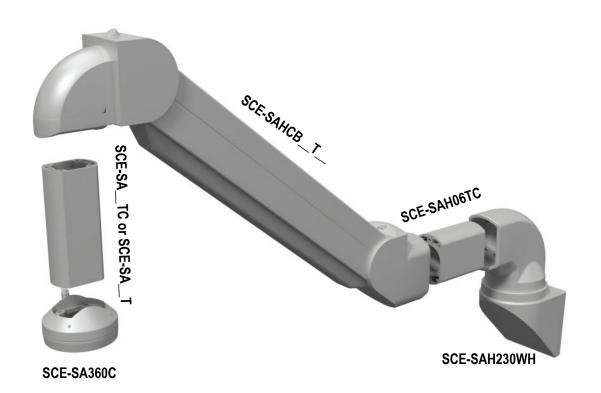


## Height Adjustable Suspension Arm Configuration Examples





Note: When assembled, profile tube <u>SCE-SAH06TC</u> is enclosed and not visible from some perspectives.



### Aluminum Suspension Arm Profiles







### **Applications**

Allows operators to easily move or position an HMI to an ergonomic and comfortable working position. Suspension Systems can be assembled in a multitude of configurations that allow for machine-, wall-, top-, and floormount options

### Construction

- Cast aluminum couplings
- Extruded aluminum tubes (6060T66)
- Rotating couplings have adjustable tensioner brakes to control movement while in use
- Rigid, durable bearing in all rotating couplings withstand the stress of continuous use
- · Open or closed tube design
- Open tube allows for easy access to lay in wiring with easy to install push fit rubber cover
- Closed tube acts as conduit for feeding wiring
- Removable access covers on all couplings with 90° turn
- Hardware and gasket included for installation of coupling to tube

Closed Tube Suspension Arm Profile					
Part	Price	Length	Drawing Link		
SCE-SA08TC	\$93.00	7.9 [201]	<u>PDF</u>		
SCE-SA20TC	\$108.00	19.7 [500]	<u>PDF</u>		
SCE-SA39TC	\$184.00	29.5 [749]	<u>PDF</u>		
SCE-SA30TC	\$203.00	39.4 [1001]	<u>PDF</u>		
SCE-SA79TC	\$312.00	78.7 [1999]	<u>PDF</u>		
Note: Dimensions in inches [millimeters].					

Open Tube Suspension Arm Profile				
Part	Price	Length	Drawing Link	
SCE-SA20T	\$134.00	19.7 [500]	<u>PDF</u>	
SCE-SA39T	\$211.00	39.4 [1001]	<u>PDF</u>	
SCE-SA79T	\$414.00	78.7 [1999]	PDF	

Note: Dimensions in inches [millimeters].

### **Finish**

• RAL7035 gray powder coated

## Heavy Duty Counter Balance Suspension Arms





### **Applications**

Allows operators to easily move or position an HMI to an ergonomic and comfortable working position. Suspension Systems can be assembled in a multitude of configurations that allow for machine-, wall-, top-, and floormount options

### Construction

- Rotating couplings have adjustable tensioner brakes to control movement while in use
- Closed tube acts as conduit for feeding wiring

### **Finish**

• RAL7035 gray powder coated end couplings

Heavy Duty Counter Balance Suspension Arms					
Part Price Load Capacity Drawing Link					
SCE-SAHCB44T70	\$3,246.00	44-70 [19.95 x 31.75]	PDF		
SCE-SAHCB70T97	\$3,743.00	70-97 [31.75 x 43.99]	PDF		
SCE-SAHCB97T132	\$3,947.00	97-132 [43.99 x 59.86]	<u>PDF</u>		
Note: Weight in pounds [kilograms]					

## Heavy-Duty Counter-Balance Suspension Arm Mounting Components



**Applications** 

Used to mount a Heavy-Duty Adjustable Arm to a vertical or Horizontal surface. Require SCE-SAH06TC to connect to adjustable arm.

### Construction

- · Cast aluminum couplings
- Extruded aluminum tubes (6060T66)
- Rotating couplings have adjustable tensioner brakes to control movement while in use
- Rigid, durable bearing in all rotating couplings withstand the stress of continuous
- Removable access covers on all couplings with 90° turn
- Hardware and gasket included for installation of coupling to tube

Top-Mounted Swivel				
Part Number Price Drawing Link				
<b>SCE-SAH310TMJ</b> \$846.00 PDF				

Mounts to horizontal surface, and offers up to 310° of arm rotation. Requires <u>SCE-SAH06TC</u> to connect to a Heavy Duty Height Adjustable Arm.



SCE-SAH310TMJ

Wall-Mount Swivel Base			
Part Number Price Drawing Link			
SCE-SAH230WH	\$1,030.00	PDF	

Mounts to horizontal surface, and offers up to 230° of arm rotation. Requires <u>SCE-SAH06TC</u> to connect to a Heavy Duty Height Adjustable Arm.



SCE-SAH230WH

Heavy-Duty Suspension Arm Profile					
Part Price Length Drawing Link					
<b>SCE-SAH06TC</b> \$121.00 6.0 [152] PDF					
Note: Weight in pounds [kilograms]					



<u>www.automationdirect.com</u> Enclosures: HMI and Suspension Arms tENS-262

## **Light Duty Counter Balance Suspension Arms**





### **Applications**

Allows operators to easily move or position an HMI to an ergonomic and comfortable working position. Suspension Systems can be assembled in a multitude of configurations that allow for machine-, wall-, top-, and floormount options.

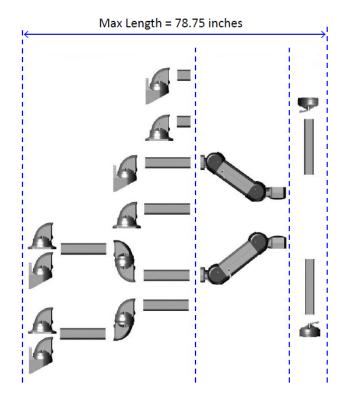
### Construction

- Rotating couplings have adjustable tensioner brakes to control movement while in use
- Closed tube acts as conduit for feeding wiring

### **Finish**

• Natural Aluminum end couplings

Light Duty Counter Balance Suspension Arms					
Part Price Load Capacity Drawing Link					
SCE-SACB11T31	\$1,263.00	11-31 [4.99 x 14.06]	PDF		
<b>SCE-SACB31T55</b> \$1,263.00 31-55 [14.06 x 24.94] PDF					
Note:Weight in pounds [kilograms]					



## **Suspension Arm Base Fittings**



### **Applications**

Connects a suspension arm profile tube to the horizontal or vertical base. Cables and wires originating in the base feed through the coupling towards the HMI enclosure.

Wall-Mount Swivel Base			
Part Number Price Drawing Link			
SCE-SA230WH	\$426.00	<u>PDF</u>	

Mounts to vertical surface, and offers up to 230° of arm rotation.



Top-Mount Swivel			
Part Number Price Drawing Link			
<b>SCE-SA310TMJ</b> \$380.00 PDF			

Mounts to horizontal surface, and offers up to 310° of arm rotation.



SCE-SA310TMJ

Enclosures: HMI and Suspension Arms tENS-263

## **Angle Fittings and Intermediate Swivel Joints**



Allows operators to easily move or position an HMI to an ergonomic and comfortable working position

Intermediate Swivel Joint				
Part Number	Price	Drawing Link		
SCE-SA310IJ	\$580.00	PDF		

Intermediate coupling steps up between two Saginaw Aluminum arm profiles. Offers 310° of arm rotation.



SCE-SA310IJ

Drop-down Intermediate Swivel Joint			
Part Number Price Drawing Link			
SCE-SA310IJD	\$580.00	PDF	

Intermediate coupling steps down between two Saginaw Aluminum arm profiles. Offers 310° of arm rotation.



90° Angle		
Part Number	Price	Drawing Link
SCE-SA90A	\$149.00	<u>PDF</u>

Fixed 90° elbow.



SCE-SA90A

# Aluminum Suspension Arm Couplings

SCE SAGINAW CONTROL & ENGINEERING

Your Enclosure Source ®

Connects suspension arm profiles to HMI enclosures.

Angle Coupling		
Part Number	Price	Drawing Link
SCE-SA320AC	\$254.00	<u>PDF</u>

Connects HMI enclosure to horizontal suspension arm. Offers 320° degrees of enclosure rotation.



SCE-SA320AC

Swivel Coupling		
Part Number	Price	Drawing Link
SCE-SA360C	\$188.00	PDF

Connects HMI enclosure to vertical suspension arm. Offers 360° of enclosure rotation.



SCE-SA360C

Inclining Adaptor		
Part Number	Price	Drawing Link
SCE-SA45IA	\$436.00	PDF

Install between HMI Enclosure and an HMI Enclosure Coupling (SCE-SA320AC, SCE-SA360C, or SCE-SAFC) for an up to 45° angle



Fixed Coupling		
Part Number	Price	Drawing Link
SCE-SAFC	\$101.00	PDF

Fixed coupling between HMI enclosure and suspension arm.



## **Aluminum Suspension Arm Floor Stand**



Allows operators to easily move or position an HMI to an ergonomic and comfortable working position

Fixed Floor Stand		
Part Number	Price	Drawing Link
SCE-SAFFS	\$97.00	PDF

Mounts to horizontal surface for fixed coupling between the mounting base and a vertical suspension arm.



SCE-SAFFS

Turntable Floor Stand		
Part Number	Price	Drawing Link
SCE-SATFS	\$186.00	PDF

Mounts to horizontal base for rotating coupling between the mounting base and a vertical suspension tube.



**SCE-SATFS** 

Enclosures: HMI and Suspension Arms tENS-266

### **Monitor Mounting Bracket**





### **Application**

Designed for use with Suspension System, allows easily installation of most Monitors to the suspension system for ergonomic and comfortable working position. Heavy-duty, reliable construction. Suspension Systems can be assembled in a multitude of configurations that allow for machine mount, wall mount, top mount, and floor mount options.

Includes a large and small monitor adapter bracket for VESA MIS D standard 75 x 75mm or 100 x 100mm mounting patterns.

#### **Finish**

Powder coated Black Textured finish.

Monitor Mounting Bracket		
Part Number	Price	Drawing Link
SCE-SAMM	\$38.50	<u>PDF</u>



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