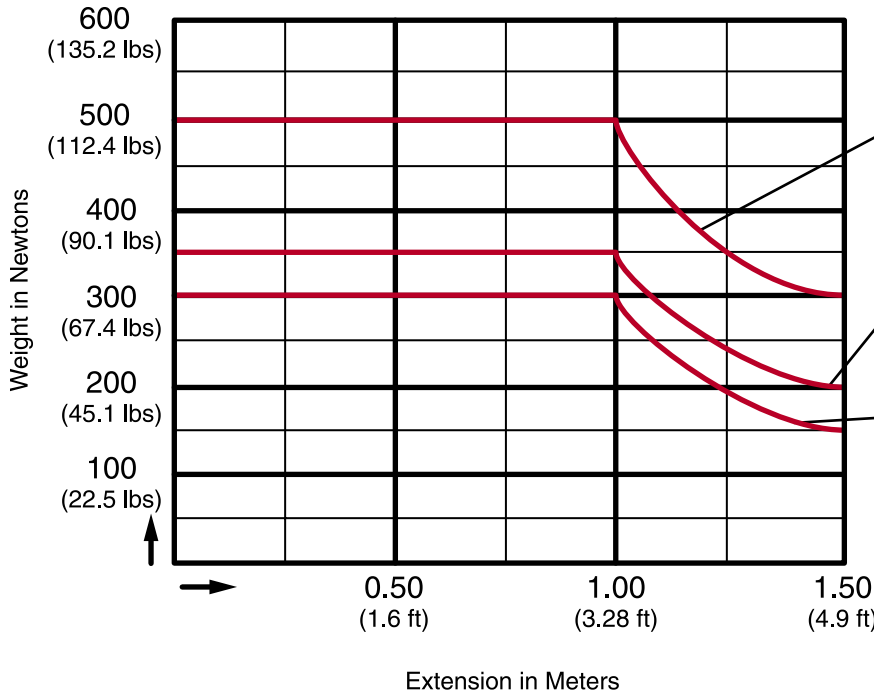


Suspension Systems - NEMA 12, 13

Tara Plus Suspension System

Operator Interface Enclosure



Measurement Conversions

1 kg = 9.81 N **1 lb = 4.44 N**
 e.g. 500 Newtons = 51 kg = 112.4 lbs
 300 Newtons = 30.6 kg = 67.4 lbs
 100 Newtons = 10.2 kg = 22.5 lbs
1 foot = 0.305 m

Suspension System

Application

- Taraplus enclosure suspension systems are designed for light and medium loads.
- The strength of tube and cast fittings provide a highly flexible robust system.

Standards

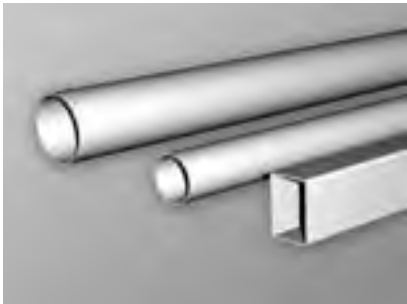
- **Complies with**
 - IEC 60529 IP54

Construction

- Enclosure coupling and elbow coupling fittings are die-cast from G AL SI 12 aluminum.
- Suspension tubing is steel.

Finish

- Fittings are finished in RAL 7040 window gray.
- Suspension tubing is RAL 7035 light gray.



Suspension Tube

Part No.	Outside mm	Inside mm	Tolerance	Length		Ship Wt. lbs
				Metres	Feet	
Round Tubes						
R144-301-000	48	40	±0.25	1	3.28	10
R144-321-000	70	62	±0.25	1	3.28	25
R144-321-500	70	62	±0.25	1.5	4.92	38
Rectangular Tubes						
R144-311-000	60 x 40	54 x 34	±0.50	1	3.28	13
R144-311-500	60 x 40	54 x 34	±0.50	1.5	4.92	26

Suspension Systems - NEMA 12, 13

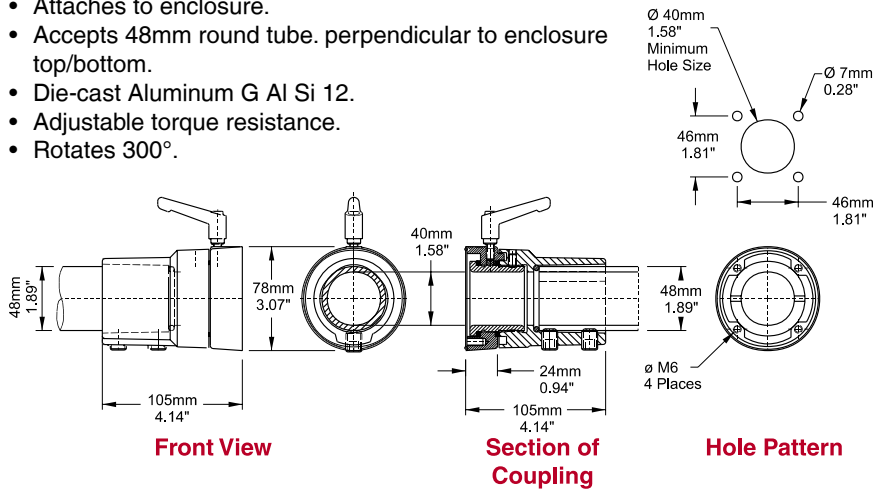
Tara Plus Suspension System



Part No. **R149-025-000**

Coupling

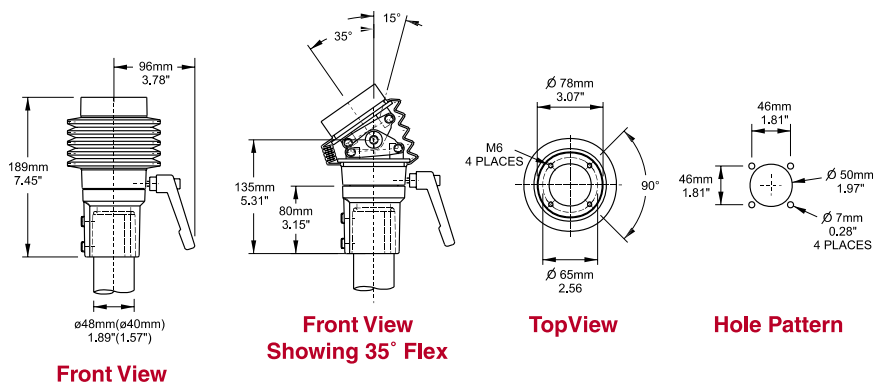
- Attaches to enclosure.
- Accepts 48mm round tube perpendicular to enclosure top/bottom.
- Die-cast Aluminum G Al Si 12.
- Adjustable torque resistance.
- Rotates 300°.



Part No. **R149-025-001**

Tilt Coupling

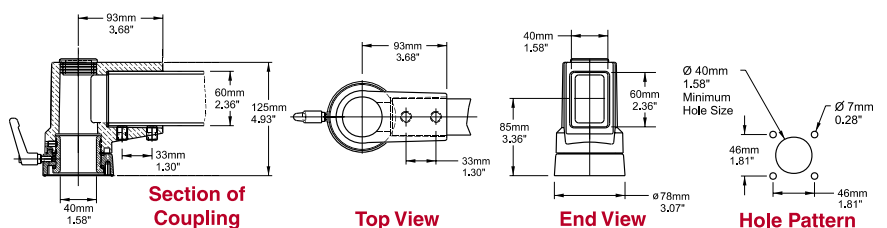
- Attaches to enclosure.
- Accepts 48mm round tube perpendicular to enclosure top/bottom.
- Die-cast Aluminum G Al Si 12.
- Rotates 300°.
- Features an adjustable tilt mechanism up to 35°.



Part No. **R149-035-000**

Elbow Coupling

- Attaches to enclosure.
- Accepts 60x40mm rectangular tube parallel to enclosure top/bottom.
- Die-cast Aluminum G Al Si 12.
- Adjustable torque resistance.
- Rotates 300°.
- Accessible from the top.



Suspension Systems - NEMA 12, 13

Tara Plus Suspension System

Operator Interface Enclosure

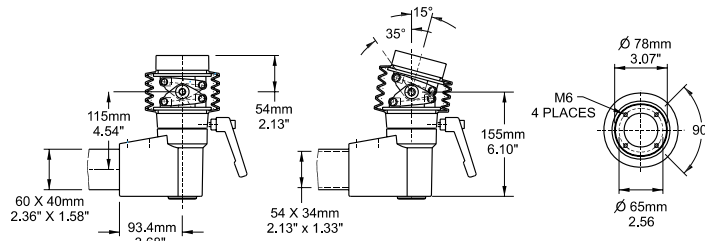
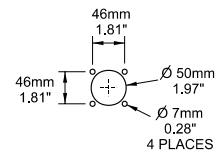


Part No. **R149-035-001**

Tilt Elbow Coupling

- Attaches to enclosure.
- Accepts 60x40mm rectangular tube parallel to enclosure top/bottom.
- Die-cast Aluminum G Al Si 12.
- Rotates 300°.
- Features an adjustable tilt mechanism up to 35°.

Hole Pattern



Front View

Front View
Showing 15° Flex

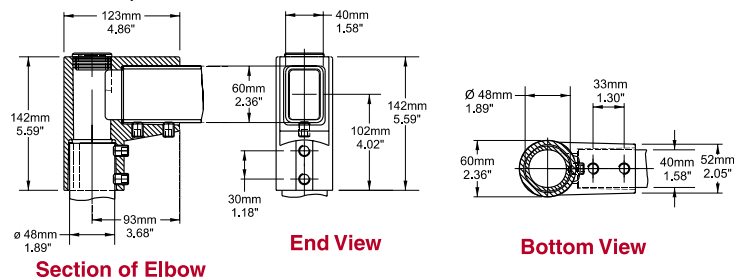
TopView



Part No. **R149-020-000**

Fixed Elbow 48

- For use with 48mm round tube and 60x40mm rectangular tube.
- Vertical 48mm tube connection for use with Couplings only (not Base 48).
- Die-cast Aluminum G Al Si 12.
- Large cover opening for easier cable pull through.
- No rotation.
- Accessible from the top.



Section of Elbow

End View

Bottom View

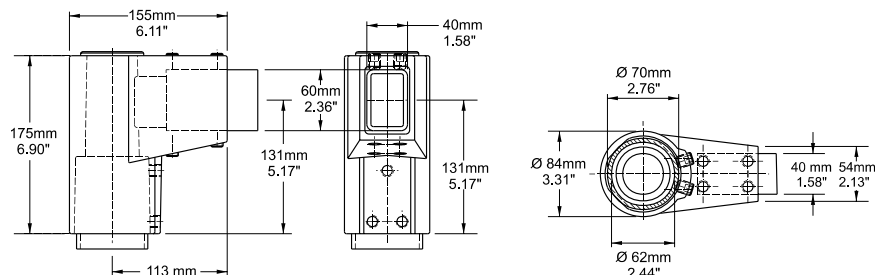
Suspension System



Part No. **R149-020-001**

Fixed Elbow 70

- For use with 70mm round tube and 60x40mm rectangular tube.
- Die-cast Aluminum G Al Si 12.
- No rotation.
- Accessible from the top.



Front View of Elbow

End View

Bottom View

Suspension Systems - NEMA 12, 13

Tara Plus Suspension System

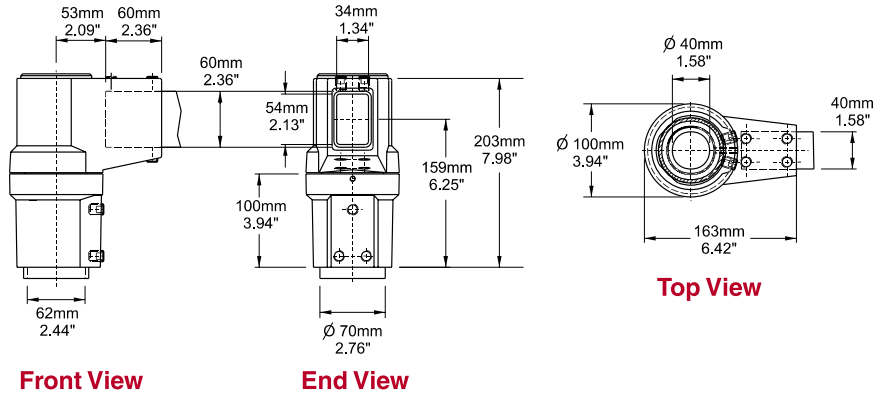
Operator Interface Enclosure



Part No. **R149-040-000**

Rotating Elbow

- For use with 70mm round tube and 60x40mm rectangular tube.
- Die-cast Aluminum G Al Si 12.
- Rotates 300°.
- Accessible from the top.



Front View

End View

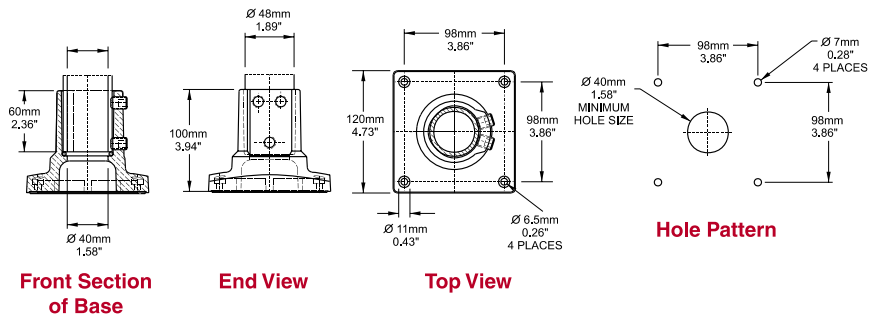
Top View



Part No. **R149-030-000**

Base 48

- For use with 48mm round tube.
- Not for use with any horizontal configurations.
- Compatible with tube up or tube down configurations.
- Die-cast Aluminum G Al Si 12.
- No rotation.



Front Section
of Base

End View

Top View

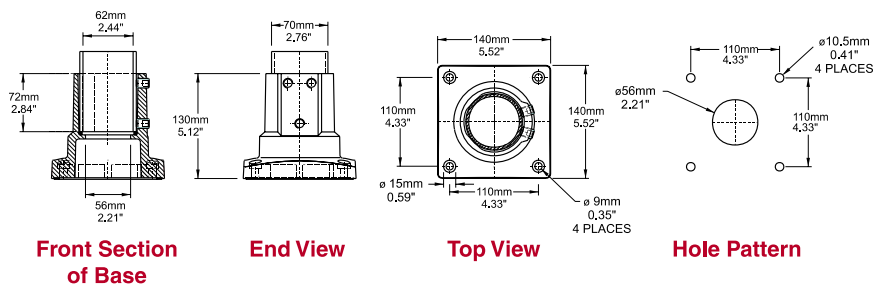
Hole Pattern



Part No. **R149-030-001**

Base 70

- For use with 70 mm tube.
- Compatible with all vertical and horizontal configurations.
- Compatible with tube up or tube down configurations.
- Die-cast Aluminum G Al Si 12.
- No rotation.



Front Section
of Base

End View

Top View

Hole Pattern

Suspension System

Suspension Systems - NEMA 12, 13

Tara Plus Suspension System

Operator Interface Enclosure

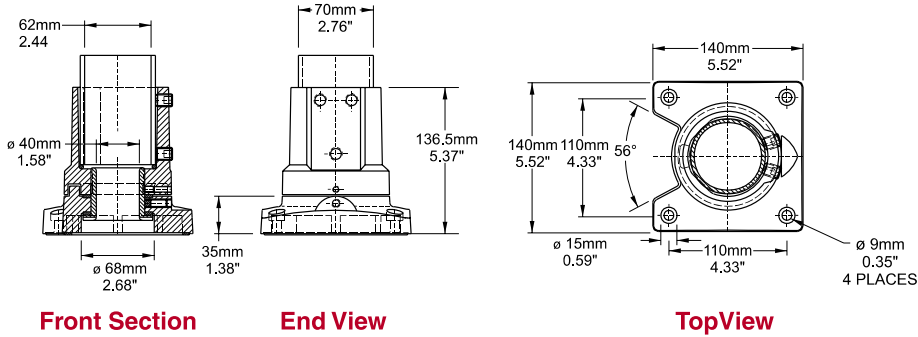
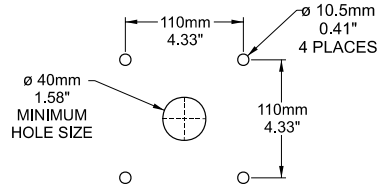


Part No. **R149-005-001**

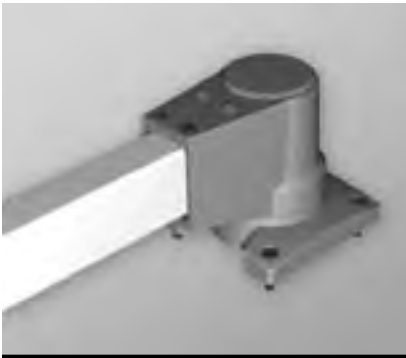
Rotating Base 70

- For use with 70 mm tube.
- Compatible with all vertical and horizontal configurations.
- Compatible with tube up or tube down configurations.
- Die-cast Aluminum G Al Si 12.
- Rotates 300°.
- Integrated movement stop.
- Service free bearings.

Hole Pattern



Suspension System

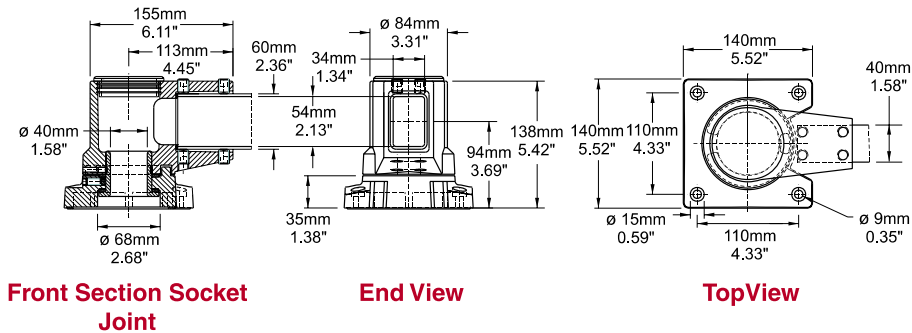
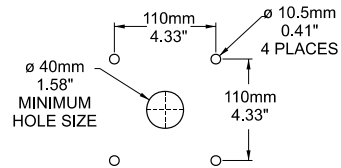


Part No. **R149-005-000**

Socket Joint

- Accepts 60x40mm rectangular tube parallel to its mounting surface.
- Die-cast Aluminum G Al Si 12.
- Integrated movement stop.
- Service free bearings.
- Rotates 300°.
- Adjustment screws (red screws).
- Accessible from the top.

Hole Pattern



Suspension Systems - NEMA 12, 13

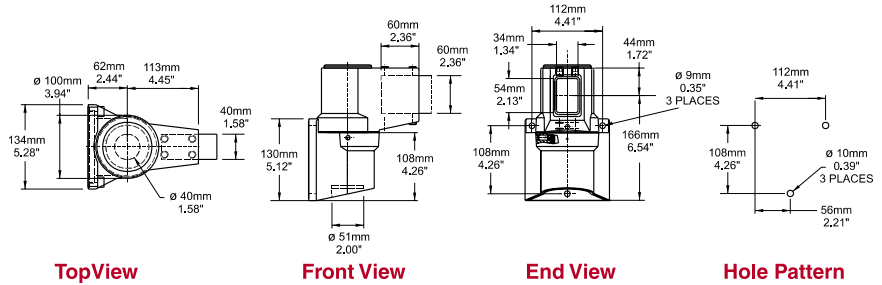
Tara Plus Suspension System



Part No. **R149-010-000**

Wall Joint

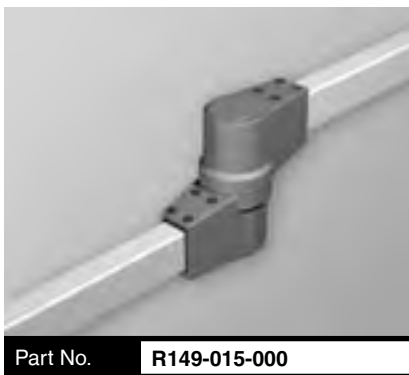
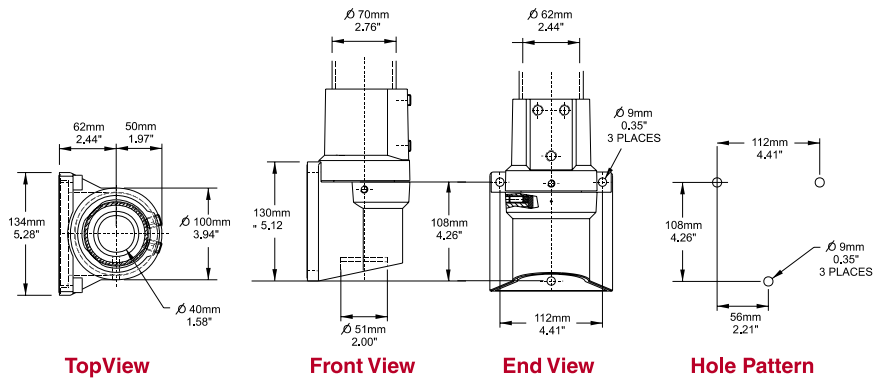
- Accepts 60x40mm rectangular tube perpendicular to its mounting surface.
- Die-cast Aluminum G Al Si 12.
- Rotates 186°.
- Accessible from the top.



Part No. **R149-010-001**

Vertical Wall Joint

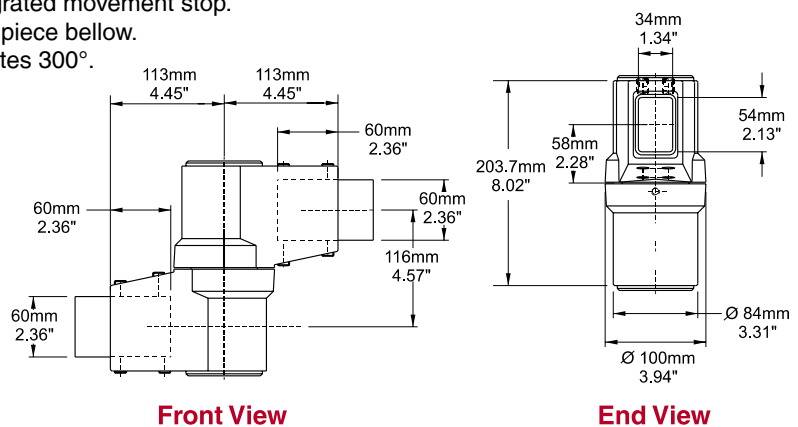
- Accepts 70mm tube parallel to its mounting surface.
- Die-cast Aluminum G Al Si 12.
- Rotates 316°.



Part No. **R149-015-000**

Intermediate Joint

- Accepts 60x40mm rectangular tube.
- Die-cast Aluminum G Al Si 12.
- Integrated movement stop.
- One piece bellow.
- Rotates 300°.



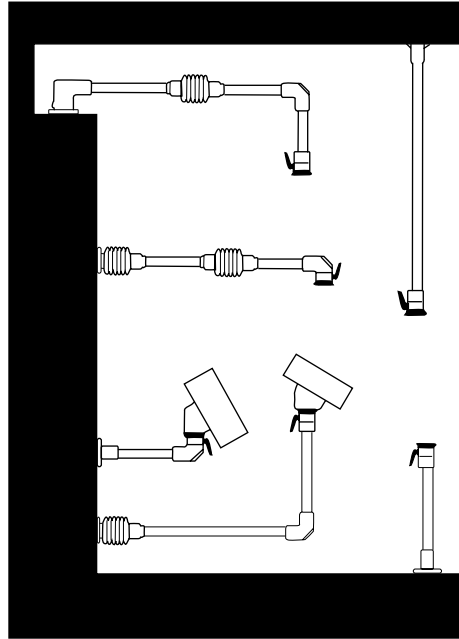
Operator Interface Enclosure

Suspension System

Suspension Systems - NEMA 12, 13

Heavy Duty 50 mm or 80 mm

Operator Interface Enclosure



Application

- Command 50mm and 80mm enclosure suspension systems are designed for medium and heavy loads.
- The strength of square tube and cast fittings provide a highly flexible, robust system.

Construction

- Enclosure coupling and elbow coupling fittings are die-cast from G Al Si 12 aluminum.
- All other fittings are die-cast 4G-s.g. iron.
- Suspension tubing is steel.

Finish

- Fittings are finished in RAL 7040 window gray powder coating.
- Suspension tubing is RAL 7035 light gray powder coating.

Standards

- **Complies with**
 - IEC 60529, IP 54

Suspension System

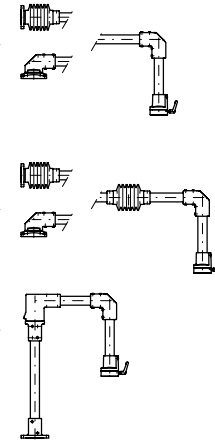
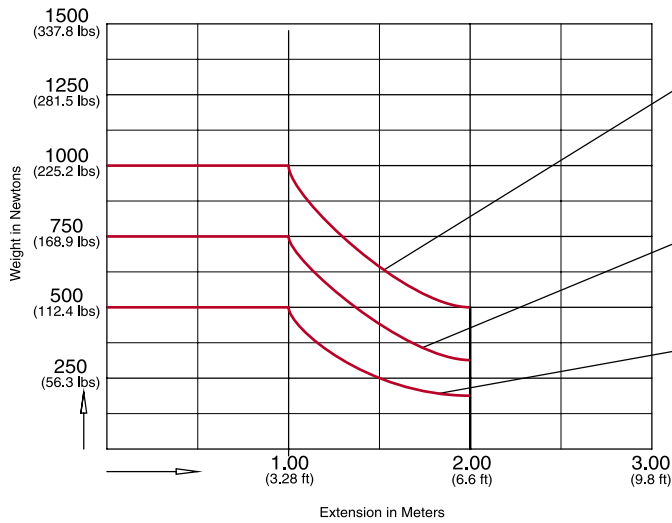
Suspension Systems - NEMA 12, 13

Heavy Duty 50 mm or 80 mm

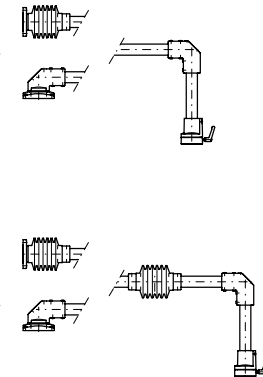
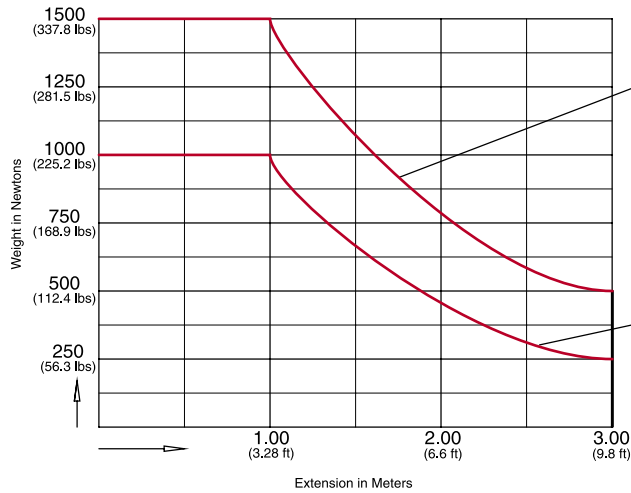
Operator Interface Enclosure

Suspension System

Load Capacity for 50mm



Load Capacity for 80mm



Measurement Conversions

1 kg = 9.81 N

1 lb = 4.44 N

e.g. 500 Newtons = 51 kg = 112.4 lbs

300 Newtons = 30.6 kg = 67.4 lbs

100 Newtons = 10.2 kg = 22.5 lbs

1 foot = 0.305 m



Suspension Tube

Part No.	Outside mm	Inside mm	Tolerance	Length		Ship Wt. lbs
				Metres	Feet	
R144-021-000R	50	40	±0.5	1	3.28	17
R144-022-000R	Square			2	6.56	26
R144-041-000R	80	70	±0.6	1	3.28	21
R144-042-000R	Square			2	6.56	33

Suspension Systems - NEMA 12, 13

Heavy Duty 50 mm or 80 mm Components

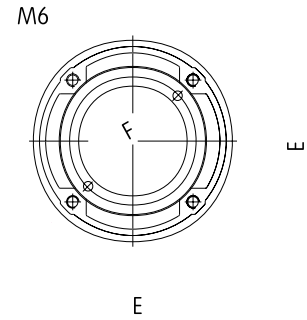
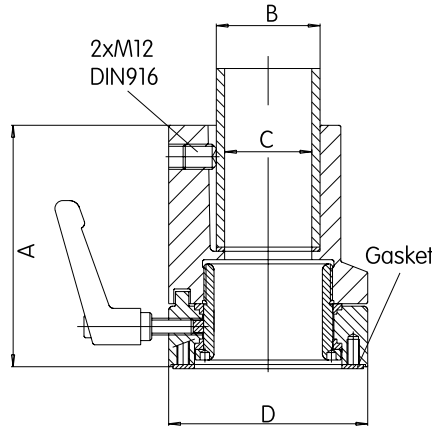
Operator Interface Enclosure



Enclosure Coupling

- Cast aluminum.
- Large thrust flange.
- Fastens with 4 hex socket screws.
- Adjustable torque resistance.
- Features a rotation range of 300°.

Part No.	System	A	B	C	D	E	F	Ship Wt. lbs.
R147-025-000R	in	50	4.53	1.97	1.65	3.78	2.28	2.06
	mm		115	50	42	96	58	52.3
R147-025-200R	in	80	5.71	3.15	2.83	5.47	3.42	3.35
	mm		145	80	72	139	87	85



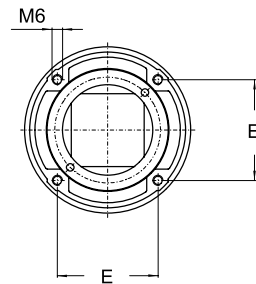
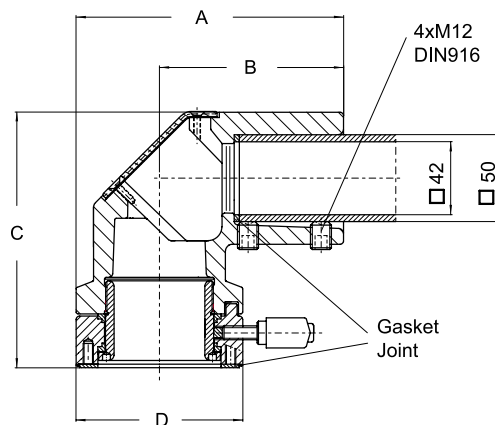
Suspension System



Elbow Coupling

- Cast Aluminum
- Large thrust flange.
- Fastens with 4 hex socket screws.
- Adjustable torque resistance.
- Features a rotation range of 300°.

Part No.	System	A	B	C	D	E	Ship Wt. lbs.
R147-035-000R	in	50	6.06	4.17	5.79	3.78	2.28
	mm		154	106	147	96	58
R147-035-200R	in	80	8.21	5.47	7.48	5.47	3.43
	mm		208.5	139	190	139	87



Suspension Systems - NEMA 12, 13

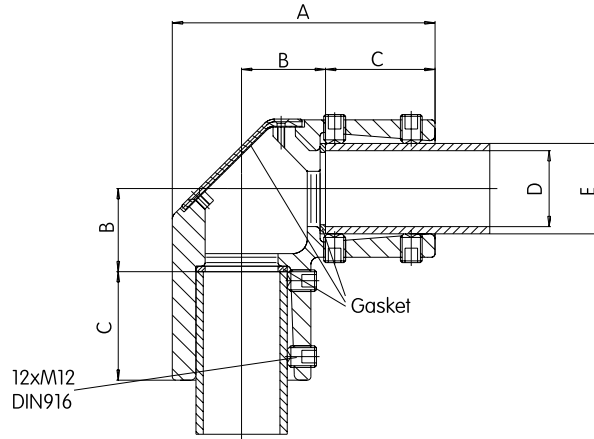
Heavy Duty 50 mm or 80 mm Components



Elbow

- Cast Aluminum
- Large cover opening for easier cable pull through.

Part No.	System	A	B	C	D	E	Ship Wt. lbs.
R147-020-000R	in	50	5.67	1.81	2.36	1.65	1.97
	mm		144	46	60	42	50
R147-020-200R	in	80	7.60	2.20	3.27	2.76	3.15
	mm		193	56	83	70	80



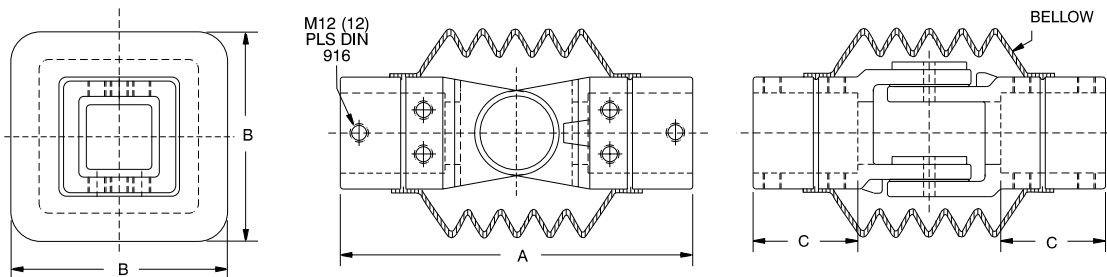
Operator Interface Enclosure



Intermediate Joint

- 4G-s.g. cast iron.
- Integrated movement stop.
- One piece bellow.
- Two sleeves.
- Features a rotation range of 170°.

Part No.	System	A	B	C	Ship Wt. lbs.
R147-015-000R	in	50	9.29	5.51	2.76
	mm		236	140	70
R147-015-200R	in	80	12.60	7.09	3.82
	mm		320	180	97



Suspension System

Suspension Systems - NEMA 12, 13

Heavy Duty 50 mm or 80 mm Components

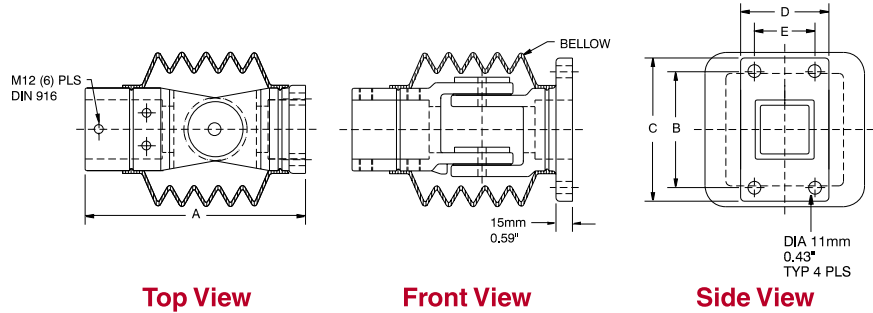
Operator Interface Enclosure



Wall Joint

- 4G-s.g. cast iron.
- Integrated movement stop.
- One piece bellow.
- Two sleeves.
- Features a rotation range of 170°.

Part No.	System	A	B	C	D	E	Ship Wt. lbs.
R147-010-000R	in	50	7.87	4.13	5.12	3.15	2.17
	mm		200	105	130	80	55
R147-010-200R	in	80	10.83	5.91	6.89	4.53	3.54
	mm		275	150	175	115	90



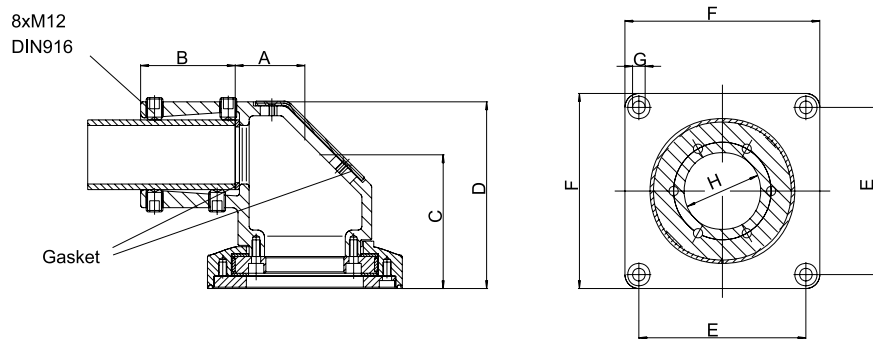
Suspension System



Socket Joint

- Cast Aluminum.
- Integrated movement stop.
- Service free bearings.
- Features a rotation range of 300°.
- Can mount on top of machine or inverted.

Part No.	System	A	B	C	D	E	F	G	H	Ship Wt. lbs.
R147-005-000R	in	50	1.97	2.68	3.78	5.28	4.72	5.51	.35	2.17
	mm		50	68	96	134	120	140	9	55
R147-005-200R	in	80	2.91	3.86	5.57	7.70	7.09	8.27	.51	3.30
	mm		74	98	141.5	195.5	180	210	13	84



Suspension Systems - NEMA 12, 13

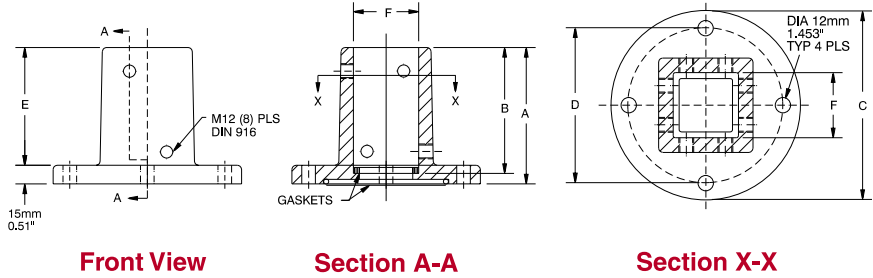
Heavy Duty 50 mm or 80 mm Components



Cast Iron Base

- 4G-s.g. cast iron.
- Gasket included.
- Does not rotate.

Part No.	System	A	B	C	D	E	F	Ship Wt. lbs.
R147-030-000R	in	50	4.33	3.94	5.98	4.92	3.74	1.97
	mm		110	100	152	125	95	50
R147-030-200R	in	80	5.51	5.12	7.87	6.81	4.92	3.15
	mm		140	130	200	173	125	80



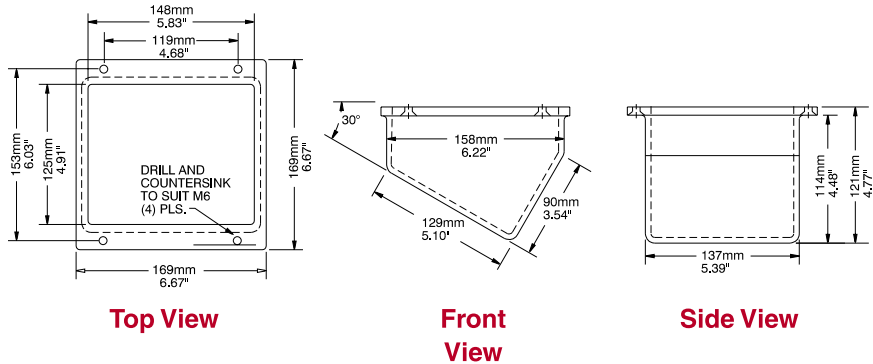
Operator Interface Enclosure



Slope Adaptor

- Provides 30° or 60° incline by mounting to rear of enclosure.
- Cast aluminum.

Part No.	Ship Wt. lbs.
R140-045-000R	8



Suspension System