

**4990**  
**Suspension Arm Systems**  
**Product Drawings**  
**Last Updated 6/26/2008**

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The Rose+Bopla 4990 Suspension Arm System is designed to support or suspend large machine control units. It offers universal options for an industrial environment. System components are

## 4990 Suspension Arm

made of cast iron or cast aluminum. Square supporting tubing is galvanized steel and is offered in two thicknesses for varying load requirements. Cable ducts and covers are made from extruded aluminum profiles. All moving parts rotate on Teflon coated bearing rings to ensure smooth motion. Rotational friction can be adjusted. All external screw holes are counter-sunk for a flush fit.

In combination with Rose+Bopla's machine control enclosure systems, it offers a variety of mounting options: as a vertical stand, as a wall-mounting system, or as a surface-mounted system.

Arms are constructed by attaching system components (wall bracket, intermediate joint, elbow, coupling, etc.) to steel supporting tubing using set screws. Additional safety screws, supplied with some system components, may be used for heavier loads. Wires are routed through a separate cable duct that surrounds the tubing. The cable duct has a removable cover for easy access. Each system component also has a removable cable duct cover. This system is capable of carrying heavier loads than any other Rose+Bopla suspension arm system.

### TECHNICAL DATA:

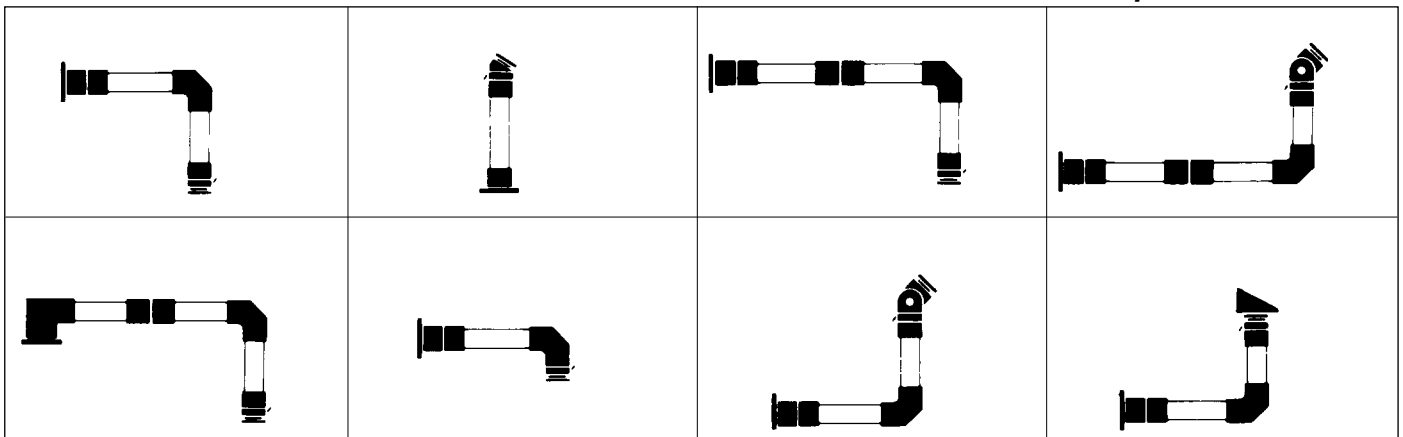
- Color: Components—transport gray, similar to RAL 7043. Aluminum profile—agate gray, similar to RAL 7038
- Material: Tubing—Square connecting tubing, 5mm or 8mm thick, steel, to ST 37 DIN 2395  
Components—cast iron with copper graphite, or aluminum.  
Cable duct and cover—aluminum extrusion  
Bearing—ball bearing  
Bellows—textile
- Cable Duct: Free cable passage in system components. Approx. 3.15" W x 2.81"H, 80 x 71.37mm
- Torque: 22 lbs. force (30 Newton Meters)
- Protection Classification: IP 65 when special surface-mounted flange is used between enclosure coupling and control panel.
- Load: When using square steel tube 80 x 80 x 5mm (ST 37 DIN 2395), maximum 500N at 3 meter extension. When using square steel tube 80 x 80 x 8mm (ST 37 DIN 2395), maximum 750N at 3 meter extension.

### Maximum Weight:

	2.4 ft.	3.3 ft.	4.9 ft.	6.6 ft.	8.1 ft.	9.8 ft.	lbf.
Supporting Tubing 80 x 80 x 5mm	449	337	225	169	135	112	lbf.
Supporting Tubing 80 x 80 x 8mm	449	449	337	253	198	169	lbf.

*lbf.=Pounds Force*

### Sample Constructions








Dimensional Drawings

# Suspension Arm Systems






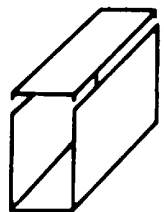
## 4990 Suspension Arm System Components



DESCRIPTION	PART NUMBER	POSITION	MATERIAL	WEIGHT	DRAWING PG	
SUPPORTING TUBING 80 x 80 x 5mm	10094159 45		Steel	71 lbs.	-	
SUPPORTING TUBING 80 x 80 x 8mm	10094234		Steel		-	
WATERTIGHT TOP FLANGE (used in conjunction with couplings)	49900020 49900030	Fixed Fixed	Aluminum w/ 3 rubber plugs (max 1" cable) Aluminum w/ gasketed steel plate	2.43 lbs. 2.43 lbs.	17-246 17-246	
BASE BRACKET	49906601	Pivots 360°	Cast Steel	44.53 lbs.	17-247	
INTERMEDIATE JOINT	49906701	Pivots 180°	Cast Iron	38.86 lbs.	17-247	
WALL BRACKET	49907001	Pivots 180°	Cast Iron	38.58 lbs.	17-248	

**NOTE:** Tubing can be cut to specific lengths. Maximum length for UPS shipment 9 feet (108")

## 4990 Suspension Arm System Components

DESCRIPTION	PART NUMBER	POSITION	MATERIAL	WEIGHT	DRAWING PG	
<i>ELBOW A</i> <i>For Light Loads</i> <i>Bottom Mount</i>	49907120	<i>Fixed</i>	<i>Cast</i> <i>Aluminum</i>	9.48 lbs.	17-248	
<i>ELBOW C</i> <i>For Heavy Loads</i> <i>Top Mount</i>	49907111 <i>(formerly</i> 49907110)	<i>Fixed</i>	<i>Cast</i> <i>Iron</i>	20.06 lbs.	17-249	
<i>COUPLING</i>	49907301	<i>Pivots 300°</i>	<i>Cast</i> <i>Aluminum</i>	8.60 lbs.	17-249	
<i>FOOT/WALL FLANGE</i>	49907401	<i>Fixed</i>	<i>Cast</i> <i>Iron</i>	13.23 lbs.	17-250	
<i>ELBOW COUPLING</i>	49907501	<i>Pivots 300°</i>	<i>Cast</i>	9.26 lbs.	17-250	
<i>CABLE DUCT</i> Note: Cable duct must be cut 175mm shorter than the tube	10094238		<i>Extruded</i> <i>Aluminum</i>		-	

**NOTE:** Tubing can be cut to specific lengths. Maximum length for UPS shipment 9 feet (108")

Dimensional Drawings

# Suspension Arm Systems

49900020 / 49900030

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## Standard Features

**Watertight Top Flange** (used in conjunction with coupling) To maintain IP 65 ingress protection for control panels when combined with Coupling or Elbow Coupling.

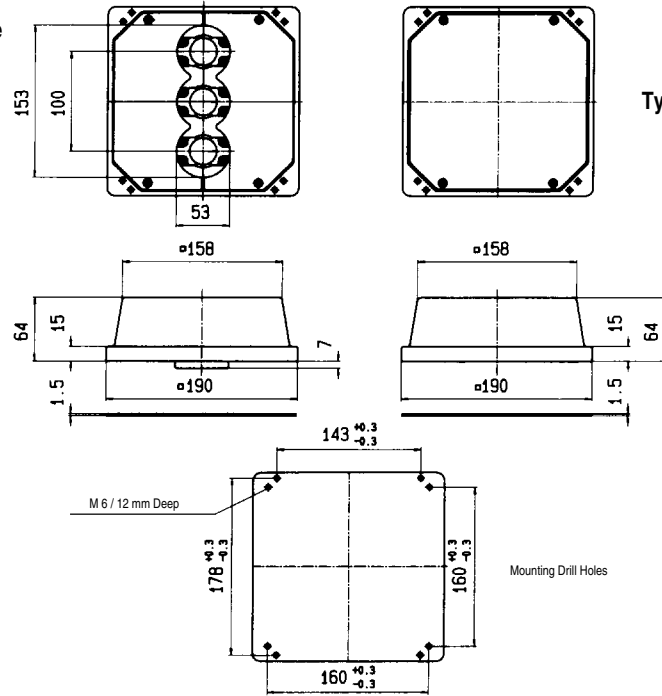
- 49900030 Type A: Cast aluminum. Large surface flange mounting on enclosure. For a maximum of 3 ready equipped cables between 7 and 26 mm diameter. Open cable duct.

- 49900020 Type B: Cast aluminum. Large surface flange mounting on enclosure. For a large number of cables. Sealing with special cable channels or cable glands. Open cable lead-in.

## Watertight Top Flange

Type A

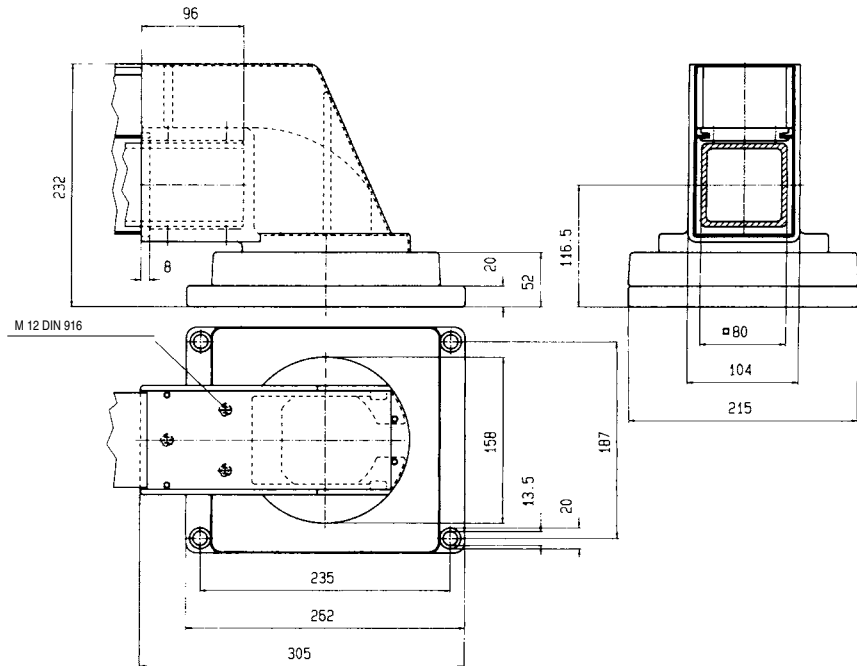
Type B



**Standard Features**

- **49906601** Base Bracket Cast iron. Attaching and adjustment on carrier arm with self-tapping Allen screws. Sealed, smooth running ball bearing. Adjustable friction-free rotary movement. Pivot 360°. Easy wiring through open cable duct.

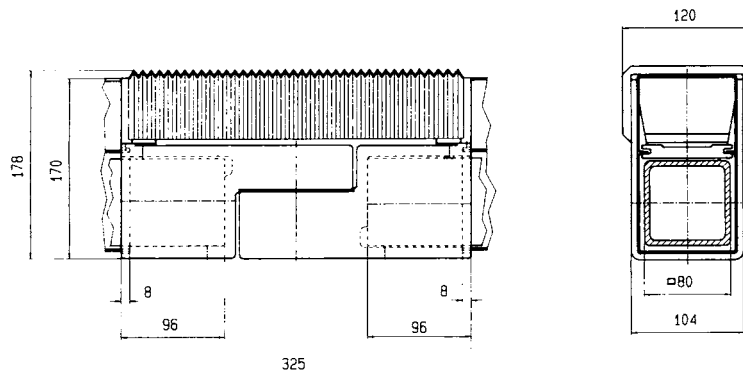
**Base Bracket**



**Standard Features**

- **49906701** Intermediate Joint, cast iron. Sealed smooth running ball bearing. Attaching and adjustment on carrier arm with self-tapping Allen screws. Adjustable friction-free rotary movement. Textile bellows for dust protection. Pivot 180°. Easy wiring through open cable duct.

**Intermediate Joint**



# Suspension Arm Systems

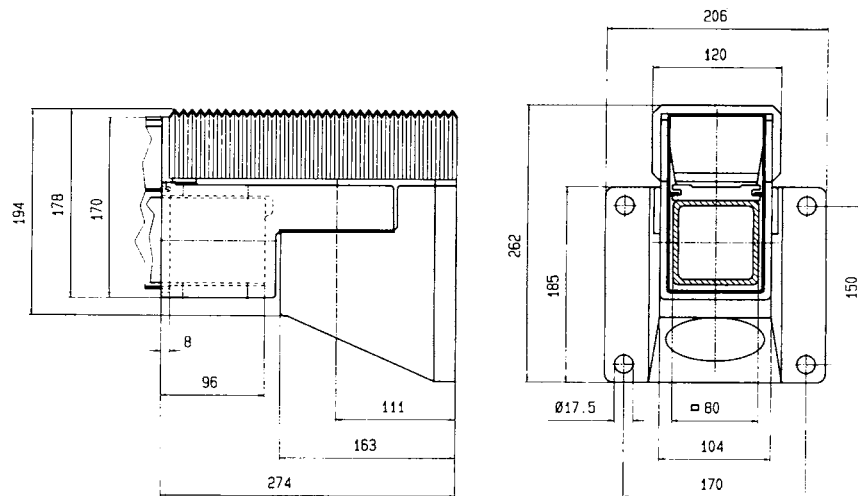
49907001

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## Standard Features

- 49907001 Wall Bracket, cast iron. Sealed smooth running ball bearing. Attaching and adjustment on carrier arm with self-tapping Allen screws. Adjustable friction-free rotary movement. Textile bellows for dust protection. Pivot 180°. Easy wiring through open cable duct.

## Wall Bracket



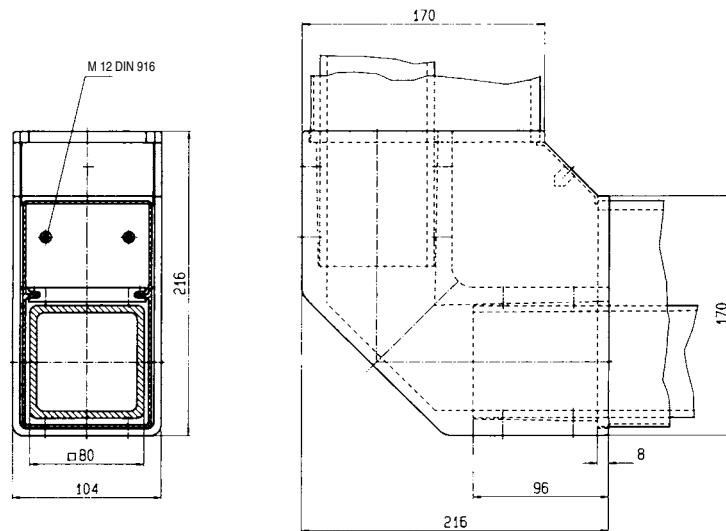
49907120

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## Standard Features

- 49907120 Elbow A, cast aluminum, 90° angle. For vertical construction from bottom to top involving little bending stress. Attaching and adjustment on carrier arm with self-tapping Allen screws. Easy wiring through open cable duct. Bottom mount.

## Elbow A



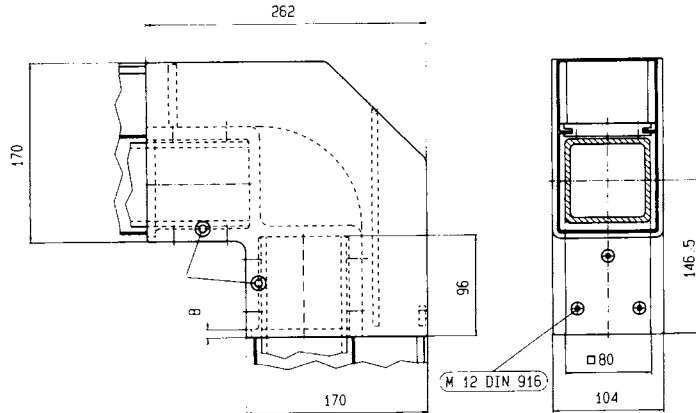
49907111

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**Standard Features**

- 49907111 Elbow C, cast iron, 90° angle. For applications involving heavy bending stress. Attaching and adjustment on carrier arm with self-tapping Allen screws. Additional safety screw for high vertical tensile strain. Easy wiring through open cable duct. Top mount.

**Elbow C**



49907301

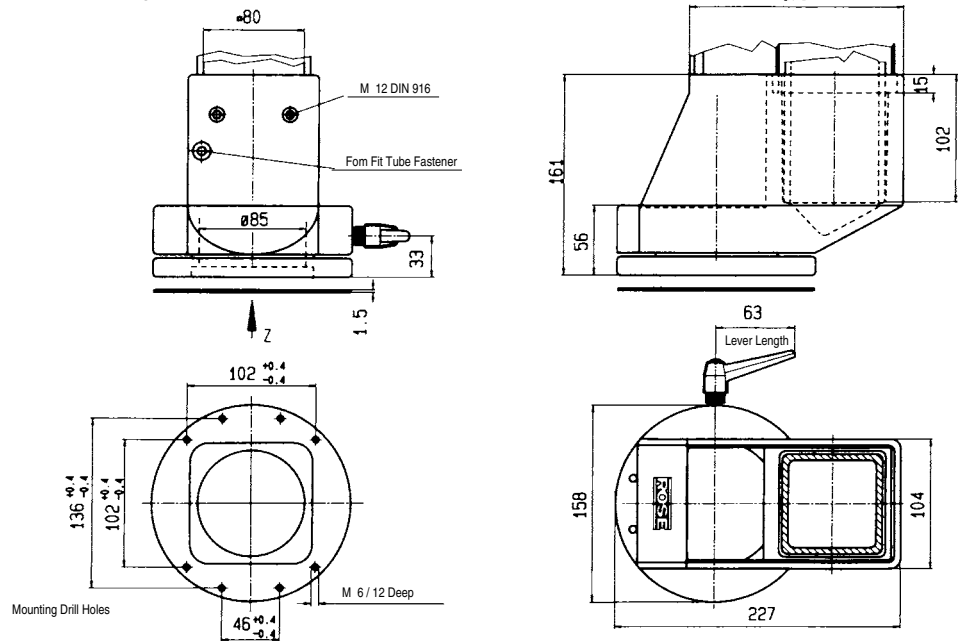
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**Standard Features**

- 49907301 Coupling, cast aluminum. Large surface flange mounting on enclosure. Attaching and adjustment on carrier arm with self-tapping Allen screws. Additional safety screw for heavy loads. Smooth running, sealed ball bearing. Friction free rotary movement, infinitely variable, using clamping lever. Pivots 300°. Easy wiring through open cable duct.

**Coupling**

Angle Coupling Pivot Area 300°



Dimensional Drawings

# Suspension Arm Systems

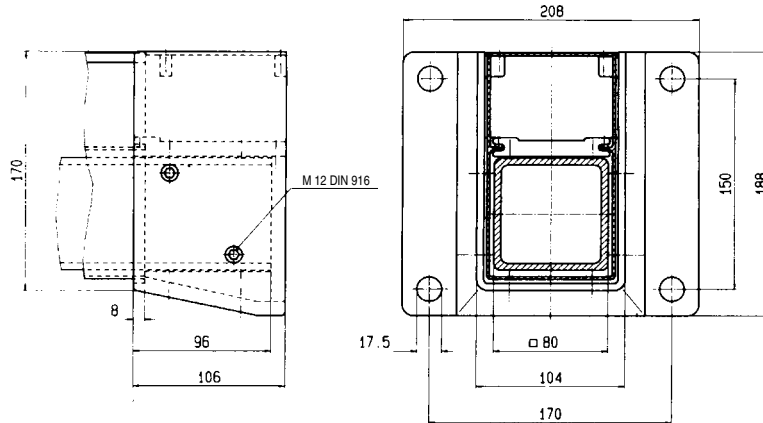
49907401

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## Standard Features

- 49907401 Foot/Wall Flange, cast iron. Attaching and adjustment on carrier arm with self-tapping Allen screws. Mounting options: Vertical, Horizontal or Suspended. Easy wiring through open cable duct.

## Foot / Wall Flange



49907501

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## Standard Features

- 49907501 Elbow Coupling, Cast aluminum. Combination of Elbow and Coupling. Large surface flange fastening on enclosure. Attaching and adjustment on carrier arm with self-tapping Allen screws. Additional safety screw for heavy loads. Smooth running, sealed ball bearing. Friction-free rotary movement, infinitely variable using clamping lever. 300° Pivot. Easy wiring through open cable duct.

## Elbow Coupling

