



# Starline Enterprises

ISO 9001:2015 Certified Company

## Quality



Communication



Services

People



Technology




*Making a difference where it counts*

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**MISSION: TO BE THE BEST FOR OUR CUSTOMERS AND THE PREFERRED SOURCE FOR PRECISION ENGINEERING COMPONENTS IN SHEET METAL, WIRE, MOLDED RUBBER AND ENGINEERING PLASTICS.**

Starline Enterprises started its Business Activity in Engineering Components in the year 2005, initially as a Sourcing Organization for Precision Engineering Components addressing the Export Market.

Inspired by the support given by our Customers, and our continuing quest to deliver Quality Products to our Customers, we set up and established our own Manufacturing Unit for the Production of Pressed Sheet Metal, Wire, Engineering Plastic and Moulded Natural Rubber & Synthetic Rubber Components.

To support our Mission, we have Qualified and Experienced Engineers to extend complete Technical Support to our Customers in terms of developing products to the Customer specifications and requirements.


Our factory is fully equipped with necessary machinery including Mechanical Presses, Hydraulic Presses and Hydro Pneumatic Presses, Precision Drilling / Tapping Machines, Rubber Mill / Rubber Moulding Presses / Rubber Extruders, Powder Coating Booth and Curing Oven in addition to complete testing and measurement devices from a fully automatic 1 Ton capacity Spring Testing Machine, to Durometers for Rubber Testing and the best in measurement and weighing instruments.

At our Office end, we have Professional and fully Trained Staff to coordinate with our Customers which in turn ensures timely responses to Customer needs and constant availability of feedback to Customer demands.

***We are ISO 9001 : 2015 Certified Company and follows Procedural and Documentation System which is Compliant with the standard procedures and above referred ISO.***

We also serve the emerging needs of our Customers by having the services of Qualified and Competent Tool Room Engineers who can design and develop new components as per individual Customer requirement.





Quality and Customer Satisfaction is a continuous and never ending process at Starline. We work hard to ensure Customer Satisfaction by providing high Quality Products, adhering to Customer Delivery Schedules and maintaining a successful working relationship. We put Customer's needs and expectations first. Adhering to this policy in all our departments ensures maximum value to our Customers.

Our Material Procurement Department has a well established network by which only Quality Materials from Standard Companies are procured. Before its entry into our Warehouse, they are all checked and evaluated to ensure the highest Standards of Quality. Quality Checks are done at each level of Productions which are all well Documented.

Finally the Finished Goods are checked with the Engineering Drawings once again to ensure that Quality is maintained. Only after the approval of Quality Control Department which is a Stand Alone Department, the Material gets packed for Shipment.

We are committed to Customer Satisfaction through

- Good Quality Products
- Competitive Pricing
- On Time Deliveries
- Proper Response to Queries
- Compliance



We give utmost importance to Health, Safety and Environment Policy. Starline maintains its Workplace safe from Hazards and Dangerous Practices. We have given the Employees the Power to reject a job which has to be done in an Unsafe Manner with the result we have a Zero accident rate to date.

We ensure that our Employees are Healthy and injury free and also ensures that we comply with the Local Environment Regulations to achieve the following:

1. Promote Healthy Life Style amongst Employees.
2. Eliminate all Employee injuries by making the Workplace and Sites free from Hazards and Unsafe Acts.
3. Reduce Pollutants in the Application Processes and Site Operations.
4. Conserve Natural Resources by conserving Water, Electricity & other Consumables and disposal of Waste complying with the local laws.
5. Establish Safety and Environmental Protection Standards that comply with the Local Laws.
6. Employees to comply with these Standards as per their job description and Rules and Procedures of the company.

# Piping Supports



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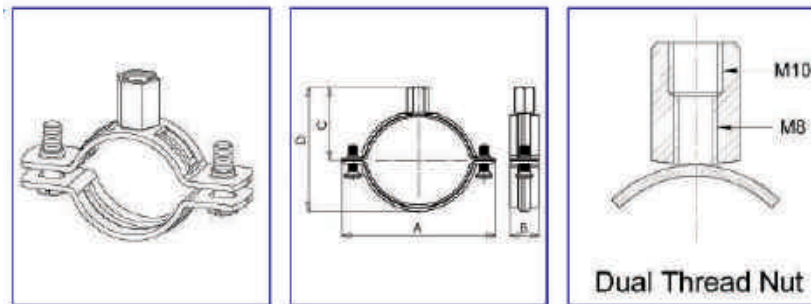
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## Plain Split Clamps

Catalogue Number : 8000100 : Rev. 04 Dated 09-02-2017



**SELECTION TABLE (Table No: B-01-01)**

Model No.	Range	Size (inch)	Nominal OD (mm)	Dimension (mm)				Thick (mm)	Safe Load (Kgs)
				A	B	C	D		
SPSC018	15-18	3/8	15	59	20	23	30	1.5	200
SPSC022	18-22	1/2	22	66	20	26	37	1.5	200
SPSC028	23-28	3/4	28	72	20	29	43	1.5	200
SPSC035	30-35	1	35	79	20	33	50	1.5	200
SPSC040	38-43	1 ¼	40	86	20	36	57	1.5	200
SPSC048	45-50	1 ½	48	92	20	39	63	1.5	200
SPSC054	51-56		54	98	20	42	69	1.5	200
SPSC060	58-63	2	60	104	20	45	75	1.5	200
SPSC070	64-69		70	114	20	50	85	1.5	250
SPSC075	70-76	2 ½	75	119	20	53	90	2	250
SPSC083	78-86		83	127	20	57	98	2	250
SPSC090	87-95	3	90	134	20	60	105	2	250
SPSC100	96-104	3 ½	100	144	20	65	115	2	250
SPSC115	105-114	4	115	159	20	73	130	2	300
SPSC125	116-123		125	169	20	78	140	2	300
SPSC133	124-132		133	177	20	82	148	2	300
SPSC140	132-140	5	140	184	20	85	155	2.5	300
SPSC150	142-150		150	194	20	90	165	2.5	300
SPSC160	152-161		160	204	25	95	175	2.5	300
SPSC168	164-175	6	168	212	25	99	183	2.5	300
SPSC200	214-225	8	200	244	25	115	215	2.5	300
SPSC220	257-269		220	264	25	125	235	2.5	300
SPSC250	271-283	10	250	294	25	140	265	2.5	300
SPSC315	315-331	12	315	359	25	173	330	2.5	300

## APPLICATION (Table No: B-02-01)

Model No.	Steel (SCH 40)		UPVC / PE	ABS
	Inches	mm		
SPSCC018				16
SPSCC022	½	22	20	DN15 (21.4)
SPSCC028	¾	28	25	DN20 (26.8)
SPSCC035	1	35	32, 38	DN25 (33.6)
SPSCC040	1 ¼	42	40, 43	DN32 (42.3)
SPSCC048	1 ½	48	45	DN40 (48.3)
SPSCC054			54	
SPSCC060	2	60	60	DN50 (60.4)
SPSCC063				
SPSCC070			70	
SPSCC075	2 ½	75	75	DN65 (75.4)
SPSCC083			83	
SPSCC090	3	90	90	
SPSCC100			102	DN80 (88.9)
SPSCC110			110	
SPSCC115	4	115	115	DN100 (114.3)
SPSCC125			125	
SPSCC133			135	
SPSCC140	5	140	140	DN125 (140.2)
SPSCC150			152	
SPSCC160			160	
SPSCC168	6		168	DN150 (168.3)
SPSCC200			200	
SPSCC220	8	219	220, 225	DN200 (225.0)
SPSCC250			250	DN225 (250.4)
SPSCC315				DN300 (315.5)



**Plain Split Clamps**

### 1. Compliance:

- 1.1) Federal Specification AS-A-1192 (Type 1)
- 1.2) MSS-SP58 (Type 1)
- 1.3) MSS-SP69
- 1.4) WW-H-171E (Type 1)
- 1.5) EG-ASTMB 633 SC3, BS 1706 FE / ZN 12

**2. Material :** Mild Steel electrogalvanised to 8-9 Micron thickness confirming to EG-ASTM B 633SC3

**3. Application :** Ceiling suspension or vertical wall mounting of piping.

### 4. Features :

- 4.1) Both clamps are ribbed for providing additional strength
- 4.2) Lips are provided with additional thread lengths by means of extended collared tap holes.
- 4.3) For pipe size, OD 100 mm and above, welded side nuts have been provided.
- 4.4) Suspension nuts have twin threads, M8, M10 for flexibility of installation.
- 4.5) Side bolts have slotted cross head for ease of tightening.

### 5. Selection / Ordering :

- 5.1) Pipe OD / pipe size plus insulation thickness.
- 5.2) Indicate if Starline Rubber Inserts are proposed to be used. (for automatic selection of clamp).
- 5.3) Hot Dip Galvanised Finish (Suffix "HDG") (Coating Thickness: 80 to 90 Microns)
- 5.4) EPDM Lined (Suffix "R")
- 5.5) Epoxy Powder Coated Finish (Suffix "P")
- 5.6) Stainless Steel Construction (Suffix "SS")

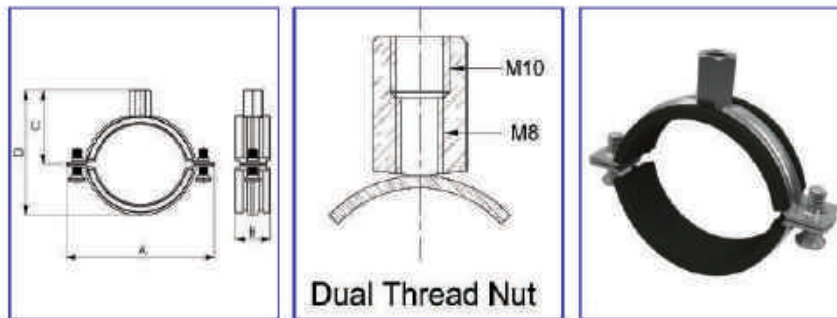
### Note:

- Due to policy of continual improvement, the specifications are subject to change without prior notice.
- Measurements are subject to 5% tolerance.
- To achieve good sound suppression, do not overload fitting.



## Rubber Lined Split Clamps

Catalogue Number : 8000101 : Rev. 03 Dated 01-06-2015



**SELECTION TABLE** (Table No: B-03-01)

Model No.	Range (mm)	Pipe OD (inch)	Nominal OD (mm)	Fixing Nut	Dimension (mm)				Thick (mm)	Break Load (kgs)	Safe Load (kgs)
					A	B	C	D			
SRLSC018	12-16	3/8" / 1/4"	15	M8 / M8-M10	60	20	26	36	1.5	600	200
SRLSC022	17-23	1/2"	22	M8 / M8-M10	65	20	29	43	1.5	600	200
SRLSC028	24-30	3/4"	28	M8 / M8-M10	70	20	32	50	1.5	600	200
SRLSC035	32-38	1"	35	M8 / M8-M10	85	20	36	56	1.5	600	200
SRLSC040	39-45	1 1/4"	42	M8 / M8-M10	92	20	39	63	1.5	600	200
SRLSC048	45-51	1 1/2"	48	M8 / M8-M10	98	20	42	72	1.5	600	200
SRLSC054	52-58		54	M8 / M8-M10	104	20	45	75	1.5	600	200
SRLSC060	58-64	2"	60	M8 / M8-M10	110	20	48	81	1.5	600	200
SRLSC063	65-71		63	M8 - M10	115	20	51	88	1.5	600	250
SRLSC075	72-81	2 1/2"	75	M8 - M10	125	20	56	96	2	900	250
SRLSC090	82-89	3"	90	M8 - M10	146	20	63	111	2	900	250
SRLSC100	90-98	3 1/2"	100	M8 - M10	156	20	68	121	2	900	250
SRLSC110	99-108		110	M8 - M10	166	20	73	131	2	900	250
SRLSC115	110-116	4"	115	M8 - M10	171	20	78	136	2	900	300
SRLSC125	119-127		125	M10	181	20	81	146	2	900	300
SRLSC133	126-135		133	M10	184	20	85	154	2	900	300
SRLSC140	136-145	5"	140	M10	196	20	88	161	2	900	300
SRLSC150	146-156		150	M10	206	20	93	171	2	900	300
SRLSC168	158-169	6"	168	M10	224	25	102	189	2	900	300
SRLSC170	170-180		175	M10	235	25	106	195	2	900	300
SRLSC194	194-206		190	M10	245	25	110	200	2	900	300
SRLSC200	208-220	8"	200	M10 / M12	256	25	118	221	2.5	900	300
SRLSC220	225-238		220	M10 / M12	276	25	128	241	2.5	900	300
SRLSC250	247-260		250	M10 / M12	306	25	143	271	2.5	900	300

(Table No: B-04-01)

Model No.	Copper (inches)	Steel (Sch 40)		UPVC/PE	ABS
		(inches)	(mm)		
SRLSC018	15, 18	3/8" / 1/4"	16		
SRLSC022	22	1/2"	22	20	DN15 (21.4)
SRLSC028	24, 28	3/4"	28	25	DN20 (26.8)
SRLSC035	35	1"	35	32, 38	DN25 (33.6)
SRLSC040	42	1 1/4"	42	40, 43	DN32 (42.3)
SRLSC048		1 1/2"	48	45	DN40 (48.3)
SRLSC054	54			54	
SRLSC060	64	2"	60	60	DN50 (60.4)
SRLSC063					
SRLSC070	67, 70			70	
SRLSC075	76	2 1/2"	75	75	DN65 (75.4)
SRLSC083	80			83	
SRLSC090		3"	90	90	
SRLSC100	102, 105			102	DN80 (88.9)
SRLSC110	108			110	
SRLSC115		4"	115	115	DN100 (114.3)
SRLSC125	125			125	
SRLSC133				135	
SRLSC140		5"	140	140	DN125 (140.2)
SRLSC150				152	
SRLSC160	159			160	
SRLSC168	167	6"	168		DN150 (168.3)
SRLSC170					
SRLSC194					
SRLSC200	206			200	
SRLSC220		8"	219	220, 225	DN200 (225.0)



Rubber Lined Split Clamps

1. Compliance:

- 1.1 Federal Specification AS-A-1192 (Type 1)
- 1.2 MSS-SP58 (Type 1)
- 1.3 MSS-SP69
- 1.4 WW-H-171E (Type 1)
- 1.5 EG-ASTMB 633 SC3, BS 1706 FE / ZN 12

2. **Material** : Mild Steel electrogalvanised to 8-9 microns conforming to EG-ASTM B 633 SC3

3. **Application** : Ceiling suspension or vertical wall mounting of piping.

4. **Features** :

- 4.1 High quality Rubber lining for suppression of sound and vibration.
- 4.2 Both clamps are ribbed for providing additional strength
- 4.3 Lips are provided with additional thread lengths by means of extended collared tap holes.
- 4.4 For pipe size, OD 100 mm and above, welded side nuts have been provided.
- 4.5 Suspension nuts have twin threads, M8, M10 for flexibility of installation.
- 4.5 Side bolts have slotted cross head for ease of tightening.

5. **Selection / Ordering** :

- 5.1 Pipe OD / pipe size plus insulation thickness.
- 5.2 Indicate if Starline Rubber Inserts are proposed to be used. (for automatic selection of clamp).
- 5.3 Hot Dip Galvanised Finish (Suffix "HDG") (Coating Thickness: 80 to 90 Microns)
- 5.4 EPDM Lined (Suffix "R")
- 5.5 Epoxy Powder Coated Finish (Suffix "P")
- 5.6 Stainless Steel Construction (Suffix "SS")

**Note:**

- Due to policy of continual improvement, the specifications are subject to change without prior notice.
- Measurements are subject to 5% tolerance.
- To achieve good sound suppression, do not overload fitting.

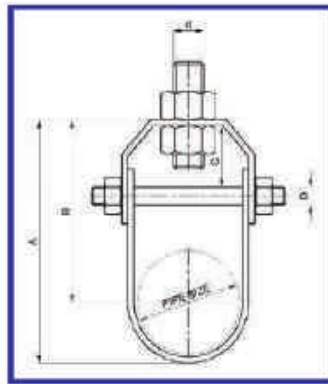
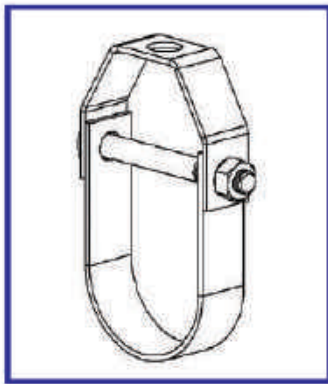


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## Clevis Hanger

Catalogue Number : 8000102 : Rev. 03 Dated 23-06-2021



**SELECTION TABLE** (Table No: B-05-01)

Model	Steel Pipe Nominal	Dimensions in mm					Max. Load (Kg)
		A	B	C (Adjustment)	D	d	
CHS 13 *	1/2"	51	38	15	M6	10	250
CHS 19 *	3/4"	59	43	15	M6	10	250
CHS 25 *	1"	80	60	27	M6	10	250
CHS 30 *	1 1/4"	90	65	30	M6	10	250
CHS 40 *	1 1/2"	103	75	36	M6	10	250
CHS 50 *	2"	120	85	40	M6	10	250
CHS 65 *	2 1/2"	145	105	47	M8	12	350
CHS 75 *	3"	170	120	57	M8	12	350
CHS 88 *	3 1/2"	190	137	45	M8	12	350
CHS 100 *	4"	205	145	59	M10	12	500
CHS 125 *	5"	250	176	55	M10	12	650
CHS 150 *	6"	280	190	55	M12	12	650
CHS 200 *	8"	334	225	60	M16	20	950
CHS 250	10"	400	255	60	M16	22	1150
CHS 300	12"	460	285	60	M16	22	1700
CHS 350	14"	510	320	65	M20	24	1700
CHS 400	16"	565	350	70	M24	24	2200
CHS 450	18"	650	410	100	M24	24	2200
CHS 500	20"	725	460	100	M30	30	2400
CHS 600	24"	840	520	100	M30	30	2700
CHS 750	30"	1025	620	125	M36	30	3100
CHS 900	36"	1210	730	150	M36	30	4500

\* UL Listed

**1. Compliance:**

- 1.1 Federal Specification AS-A-1192 (Type 1)
- 1.2 MSS-SP58 (Type 1)
- 1.3 MSS-SP69
- 1.4 WW-H-171E (Type 1)
- 1.5 EG-ASTMB 633 SC3, BS 1706 FE / ZN 12
- 1.6 UL Listed

**2. Application:**

- 2.1 To achieve effective level installation of pipe lines.
- 2.2 Fire fighting and chilled water pipe work.
- 2.3 Independent suspension of large pipes.
- 2.4 Suspension of insulated or plain stationary piping.
- 2.5 Suitable for sound suppression in pipe lines.

**3. Product Features:**

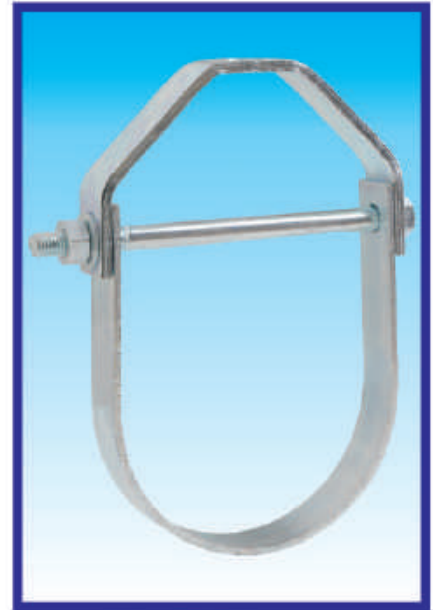
- 3.1 Allows vertical level adjustment of pipe lines after installation.
- 3.2 Models CHS250 and above are fitted with steel spacer sleeve as standard.
- 3.3 Optional EPDM lined hangers are available to minimize condensation, improve noise attenuation and prevent contact between dissimilar metals.
- 3.4 Material : Mild Steel electro galvanized. Optional hot dip galvanized / stainless steel.

**4. Selection / Ordering:**

- 4.1 Bare piping : OD.
- 4.2 Insulated Piping : effective OD or pipe size plus insulation thickness.
- 4.3 Whether Starline Rubber Support Inserts are proposed to be used.
- 4.4 Material Specs :
  - EPDM lined: (Suffix "R").
  - Epoxy powder coated finish (Suffix "EPC").
  - Hot dip galvanizes (Suffix "HDG")
  - Stainless Steel (Suffix "SS")

**5. Installation Guide lines:**

Suspension nuts to be provided with oversized washers and tighten properly to ensure proper hanger performance.



Clevis Hanger

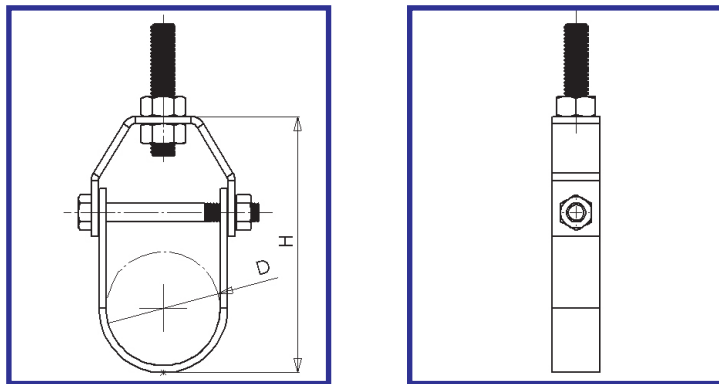
**Note:**

- Due to policy of continual improvement, the specifications are subject to change without prior notice.
- Measurements are subject to 5% tolerance.
- To achieve good sound suppression, do not overload fitting.



## Clevis Hanger - Heavy Duty

Catalogue Number : 8000110 : Rev. 01 Dated 20-02-15



**SELECTION TABLE (Table No. 200215-01)**

Part No.	Pipe Size Inches	Dimensions (mm)						Max Load LBS
		Upper Steel	Lower Steel	Rod Hole Size	Bolt Size	H	D	
SCHHD13	½"	3 x 25	3 x 25	10	M8 x 60	70	22	2710
SCHHD19	¾"	3 x 25	3 x 25	10	M8 x 68	76	28	2710
SCHHD25	1"	3 x 25	3 x 25	10	M8 x 78	82	35	2710
SCHHD32	1-1/4"	3 x 25	3 x 25	10	M8 x 82	92	42	2710
SCHHD38	1-1/2"	3 x 25	3 x 25	10	M8 x 88	100	48	2710
SCHHD51	2"	3 x 25	3 x 25	10	M10 x 110	117	60	2710
SCHHD64	2-1/2"	4 x 25	4 x 25	10	M10 x 125	146	73	5020
SCHHD76	3"	4 x 25	4 x 25	10	M10 x 140	155	89	5020
SCHHD89	3-1/2"	4 x 25	4 x 25	10	M10 x 155	173	105	5020
SCHHD102	4"	6 x 32	6 x 32	10	M10 x 170	198	115	6360
SCHHD127	5"	6 x 32	6 x 32	12	M12 x 195	232	140	6360
SCHHD152	6"	6 x 40	5 x 40	12	M12 x 225	266	168	8630
SCHHD203	8"	6 x 40	5 x 40	12	M12 x 275	338	219	8890
SCHHD254	10"	6 x 40	6 x 40	16	M16 x 360	419	273	16010
SCHHD305	12"	9 x 50	6 x 50	20	M20 x 420	490	323	16900
SCHHD356	14"	9 x 50	6 x 50	20	M20 x 455	556	355	18680
SCHHD406	16"	12 x 65	6 x 65	24	M24 x 510	610	406	20460
SCHHD457	18"	12 x 65	6 x 65	24	M24 x 555	675	457	21350
SCHHD508	20"	12 x 75	9 x 75	30	M24 x 610	715	508	21350
SCHHD610	24"	16 x 75	9 x 75	30	M24 x 710	850	610	21350
SCHHD762	30"	19 x 75	9 x 75	30	M24 x 890	995	755	26690

**1. Compliance:**

- 1.1 Federal Specification AS-A-1192 (Type 1)
- 1.2 MSS-SP58 (Type 1)
- 1.3 MSS-SP69
- 1.4 WW-H-171E (Type 1)
- 1.5 EG-ASTMB 633 SC3, BS 1706 FE / ZN 12

**2. Application:**

- 2.1 To achieve effective level installation of pipe lines.
- 2.2 Fire fighting and chilled water pipe work.
- 2.3 Independent suspension of large pipes.
- 2.4 Suspension of insulated or plain stationary piping.
- 2.5 Suitable for sound suppression in pipe lines.

**3. Product Features:**

- 3.1 Allows vertical level adjustment of pipe lines after installation.
- 3.2 Models CHS250 and above are fitted with steel spacer sleeve as standard.
- 3.3 Optional EPDM lined hangers are available to minimize condensation, improve noise attenuation and prevent contact between dissimilar metals.
- 3.4 Material : Mild Steel electro galvanized. Optional hot dip galvanized / stainless steel.

**4. Selection / Ordering:**

- 4.1 Bare piping : OD.
- 4.2 Insulated Piping : effective OD or pipe size plus insulation thickness.
- 4.3 Whether Starline Rubber Support Inserts are proposed to be used.
- 4.4 Material Specs :
  - EPDM lined: (Suffix "R").
  - Epoxy powder coated finish (Suffix "EPC").
  - Hot dip galvanizes (Suffix "HDG")
  - Stainless Steel (Suffix "SS")

**5. Installation Guide lines:**

- 5.1 Suspension nuts to be provided with oversized washers and tighten properly to ensure proper hanger performance.



**Clevis Hanger  
Heavy Duty**

**Note:**

- Due to policy of continual improvement, the specifications are subject to change without prior notice.
- Measurements are subject to 5% tolerance.

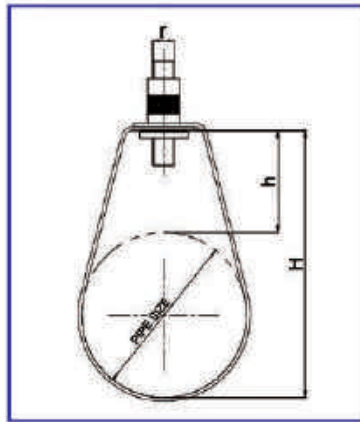
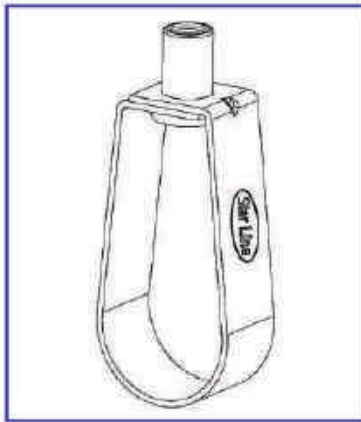


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## Sprinkler Clamps

Catalogue Number : 8000103 : Rev. 03 Dated 23-06-2021



**SELECTION TABLE (Table No: B-07-01)**

Model No.	Pipe Size (inches)	Threaded Connection (r) (mm)	Strip Size (mm)	Height (mm) (H)	Height Adjustment (h) (mm)	Safe working Load (kgs)
SSC022 *	1/2"	10	1.2x19	54	28	150
SSC028 *	3/4"	10	1.2x19	61	33	150
SSC035 *	1"	10	1.2x19	68	29	150
SSC040 *	1 1/4"	10	1.2x19	75	29	150
SSC048 *	1 1/2"	10	1.2x19	81	29	150
SSC060 *	2"	10	1.2x19	100	36	150
SSC075 *	2 1/2"	10	2x24	120	40	225
SSC090 *	3"	10	2x24	135	40	225
SSC100 *	3 1/2"	10	2x24	150	44	225
SSC115 *	4"	10	2x24	165	44	225
SSC140 *	5"	12	2.5x24	195	47	300
SSC168 *	6"	12	2.5x24	230	54	300
SSC200	8"	12	2.5x24	290	62	300
SSC250	10"	12	2.5x24	345	65	300

\* UL Listed



**LISTED**

Pipe Hangers EX28297

**1. Compliance:**

- 1.1 Federal Specification AS-A-1192 (Type 1)
- 1.2 MSS-SP58 (Type 1)
- 1.3 MSS-SP69
- 1.4 WW-H-171E (Type 1)
- 1.5 EG-ASTMB 633 SC3, BS 1706 FE / ZN 12
- 1.6 UL Listed

**2. Material :**

Mild Steel electro galvanized to 8 - 9 microns confirming to ASTM B633 SC3

**3. Application :**

Sprinkler system and fire extinguishing systems for free hanging of horizontal pipe lines.



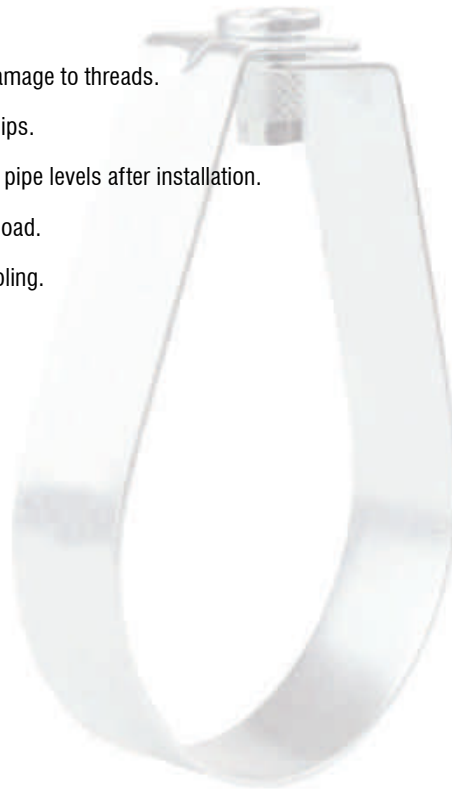
Sprinkler Clamps

**4. Features :**

- 4.1 Swivel Nuts are counter sunk to eliminate damage to threads.
- 4.2 Additional strength provided by notching of lips.
- 4.3 Knurled nut facilitates vertical adjustment of pipe levels after installation.
- 4.4 One piece clip guarantees high permissible load.
- 4.5 Mounting possible without any additional tooling.

**5. Selection / Ordering :**

- 5.1 Hot Dip Galvanised finish (suffix "HDG")
- 5.2 EPDM Lined (suffix "R").
- 5.3 Epoxy Powder Coated Finish (suffix "P")
- 5.4 Stainless Steel Construction (suffix "SS")



**Note:**

- Due to policy of continual improvement, the specifications are subject to change without prior notice.
- Measurements are subject to 5% tolerance.
- To achieve good sound suppression, do not overload fitting.

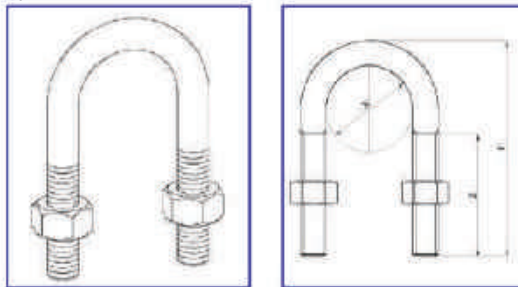


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### U Bolt

Catalogue Number : 8000104 : Rev. 03 Dated 30-01-2017



**SELECTION TABLE (Table No: B-09-01)**

Model No.	Size	Threaded Connection	Dimensions (mm)		
			X	Y	Z
SUB022	½"	M6	21	42	25
SUB028	¾"	M6	27	48	25
SUB035	1"	M6	34	54	25
SUB042	1 ¼"	M6	43	62	25
SUB048	1 ½"	M8	48	75	35
SUB060	2"	M8	60	87	35
SUB075	2 ½"	M8	76	103	35
SUB090	3"	M10	89	122	45
SUB115	4"	M10	115	148	45
SUB140	5"	M12	140	180	50
SUB160	6"	M12	168	205	50
SUB219	8"	M12	219	260	50
SUB273	10"	M16	273	324	70
SUB324	12"	M16	324	375	70
SUB356	14"	M16	356	407	70
SUB406	16"	M16	406	458	70
SUB457	18"	M20	457	522	85
SUB508	20"	M20	508	573	85
SUB558	22"	M20	559	624	85
SUB610	24"	M20	610	675	85
SUB660	26"	M24	664	738	100
SUB710	28"	M24	716	789	100
SUB762	30"	M24	767	840	100
SUB915	36"	M24	920	995	100

**1. Compliance:**

- 1.1 Federal Specification AS-A-1192 (Type 1)
- 1.2 MSS-SP58 (Type 1)
- 1.3 MSS-SP69
- 1.4 WW-H-171E (Type 1)
- 1.5 EG-ASTMB 633 SC3, BS 1706 FE / ZN 12

**2. Material :**

- 2.1 Mild Steel, Stainless Steel, Brass
- 2.2 Coating options for Mild Steel:
  - 2.2.1 Electro galvanized to 8-9 microns conforming to EG ASTM B633 SC3.
  - 2.2.2 Hot Dip Galvanised. Coating Thickness minimum 90 microns. Threaded end will be retapped and special coating applied to prevent rusting.
  - 2.2.3 Rubber Moulded Lining in Natural Rubber, EPDM, Nitrile Rubber etc.
  - 2.2.4 Rubber Sleeve Lining in Natural Rubber, EPDM, Nitrile Rubber etc.
  - 2.2.5 Epoxy Coating



U Bolt

**3. Application :**

Clamping plain or insulated pipes to standard channel supports such as trapeze hangers, floor stands and wall brackets.

**4. Features:**

Full range of intermediate sizes available to ensure a simple and effective support and clamping arrangement for insulated / non insulated piping.

**5. Selection / Ordering:**

- 5.1 Bare piping : OD.
- 5.2 Insulated Piping : Effective OD or pipe size plus insulation thickness.
- 5.3 If Starline Rubber Support Inserts are proposed to be used, then Model Number of Starline Rubber Support.
- 5.4 Material Specs :
  - 5.4.1 EPDM lined: (Suffix "R").
  - 5.4.2 Epoxy powder coated finish (Suffix "EPC").
  - 5.4.3 Hot dip galvanized (Suffix "HDG")
  - 5.4.4 Stainless Steel (Suffix "SS")

**Note:**

- Due to policy of continual improvement, the specifications are subject to change without prior notice.
- Measurements are subject to 5% tolerance.
- To achieve good sound suppression, do not overload fitting.

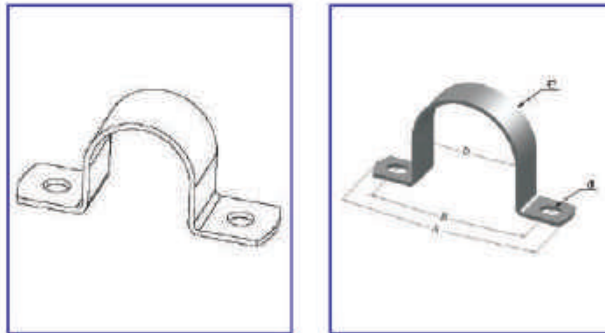


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## U Strap Clamps

Catalogue Number : 8000105 : Rev. 02 Dated 09-02-2017



### DIMENSIONAL DATA FOR U-STRAP CLAMP (Table No: B-11-01)

Model	Size	D (mm)	A (mm)	B (mm)	d Bolt Size	C Strip Size(mm)
SUSC022	1/2"	22	79	54	M8	25x2
SUSC028	3/4"	28	85	60	M8	25x2
SUSC035	1"	35	92	67	M8	25x2
SUSC042	1 1/4"	42	99	74	M8	25x2
SUSC048	1 1/2"	48	106	81	M8	25x2
SUSC054		54	112	87	M8	25x2
SUSC060	2"	60	118	93	M8	25x2
SUSC067		67	125	100	M8	25x2
SUSC075	2 1/2"	75	146	116	M10	25x3
SUSC082		82	151	121	M10	25x3
SUSC086		86	157	127	M10	25x3
SUSC090	3"	90	160	130	M10	25x3
SUSC094		94	164	134	M10	25x3
SUSC100	3 1/2"	100	172	142	M10	25x3
SUSC105		105	177	147	M10	25x3
SUSC110		110	182	152	M10	25x3
SUSC115	4"	115	187	157	M10	25x3
SUSC120		120	192	162	M10	25x3
SUSC126		126	198	168	M10	25x3
SUSC133		133	202	172	M10	25x3
SUSC137		137	206	176	M10	25x3
SUSC142		142	213	183	M10	25x3
SUSC148		148	219	189	M10	25x3
SUSC155		155	226	196	M10	25x3
SUSC161		161	233	203	M10	25x3
SUSC167	6"	167	240	210	M10	25x3
SUSC173		173	246	216	M10	25x3
SUSC179		179	250	220	M10	25x3
SUSC185		185	257	227	M10	38x3
SUSC190		190	262	232	M10	38x3

Model	Size	D (mm)	A (mm)	B (mm)	d Bolt Size	C Strip Size(mm)
SUSC198		198	270	240	M10	38x3
SUSC205		205	275	245	M10	38x3
SUSC212		212	281	251	M10	38x3
SUSC219	8"	219	288	258	M10	38x3
SUSC223		223	295	265	M10	38x3
SUSC230		230	300	270	M10	38x3
SUSC241		241	340	300	M12	38x4
SUSC259		259	356	316	M12	38x4
SUSC263		263	363	323	M12	38x4
SUSC273	10"	273	368	328	M12	38x4
SUSC285		285	380	340	M12	38x4
SUSC295		295	392	352	M12	38x4
SUSC315		315	412	372	M12	38x4
SUSC323	12"	323	420	380	M12	38x4
SUSC338		338	434	394	M12	38x4
SUSC345		345	446	406	M12	38x4
SUSC356	14"	356	473	423	M16	50x4
SUSC374		374	491	441	M16	50x4
SUSC387		387	506	456	M16	50x4
SUSC400		400	518	468	M16	50x4
SUSC406	16"	406	524	474	M16	50x4
SUSC420		420	541	491	M16	50x4
SUSC432		432	550	500	M16	50x4
SUSC450		450	567	517	M16	50x4
SUSC456	18"	456	574	524	M16	50x5
SUSC470		470	591	541	M16	50x5
SUSC482		482	600	550	M16	50x5
SUSC508	20"	508	624	574	M16	50x5
SUSC521		521	639	589	M16	50x5
SUSC533		533	651	601	M16	50x5
SUSC559		559	676	626	M16	50x5
SUSC572		572	690	640	M16	50x5
SUSC583		583	702	652	M16	50x5
SUSC610	24"	610	726	676	M16	50x5
SUSC634		634	762	712	M16	50x6
SUSC660		660	788	738	M16	50x6



U Strap Clamps

**1. Compliance:**

- 1.1 Federal Specification AS-A-1192 (Type 1)
- 1.2 MSS-SP58 (Type 1)
- 1.3 MSS-SP69
- 1.4 WW-H-171E (Type 1)
- 1.5 EG-ASTMB 633 SC3, BS 1706 FE / ZN 12

**Note:**

- Due to policy of continual improvement, the specifications are subject to change without prior notice.
- Measurements are subject to 5% tolerance.
- To achieve good sound suppression, do not overload fitting.



## U Strap Clamps

### Selection for Common Pipe / Insulation Sizes (Table No: B-13-01)

Steel Pipe Nominal	Clamp Model for Insulation / RSI Thickness					
	Bare Pipe	19 mm	25 mm	32 mm	38 mm	50 mm
½"	SUSC022	SUSC060	SUSC075	SUSC086	SUSC100	SUSC120
¾"	SUSC028	SUSC067	SUSC082	SUSC094	SUSC105	SUSC126
1"	SUSC035	SUSC075	SUSC086	SUSC100	SUSC110	SUSC137
1 ¼"	SUSC042	SUSC082	SUSC094	SUSC105	SUSC120	SUSC142
1 ½"	SUSC048	SUSC086	SUSC100	SUSC115	SUSC126	SUSC148
2"	SUSC060	SUSC100	SUSC110	SUSC126	SUSC137	SUSC161
2 ½"	SUSC075	SUSC115	SUSC126	SUSC142	SUSC155	SUSC175
3"	SUSC090	SUSC126	SUSC142	SUSC155	SUSC167	SUSC190
4"	SUSC115	SUSC155	SUSC167	SUSC179	SUSC190	SUSC219
5"	SUSC142	SUSC179	SUSC190	SUSC205	SUSC219	SUSC241
6"	SUSC167	SUSC205	SUSC219	SUSC230	SUSC241	SUSC273
8"	SUSC219		SUSC273	SUSC285	SUSC295	SUSC323
10"	SUSC273		SUSC323	SUSC338	SUSC345	SUSC374
12"	SUSC323		SUSC374	SUSC387	SUSC400	SUSC420
14"	SUSC356		SUSC406	SUSC420	SUSC432	SUSC456
16"	SUSC406		SUSC456	SUSC470	SUSC482	SUSC508
18"	SUSC456		SUSC508	SUSC521	SUSC533	SUSC559
20"	SUSC508		SUSC559	SUSC572	SUSC583	SUSC610

**2. Material:**

Mild Steel Electro galvanized to 8 - 9 microns confirming to EG ASTM B633 SC3

**3. Application:**

Clamping plain or insulated pipes to standard channel supports such as trapeze hangers, floor stands and wall brackets.

**4. Features:**

Slotted mounting holes for convenient installation.  
Intermediate sizes available to ensure tight installation.

**5. Selection / Ordering:**

- 5.1 Hot Dip Galvanised Finish (Suffix "HDG")
- 5.2 EPDM Lined (Suffix "R")
- 5.3 Epoxy Powder Coated Finish (Suffix "P")
- 5.4 Stainless Steel Construction (Suffix "SS")





U Strap Clamps

**U Strap Clamp : Selection Table : for PVC and CPVC Pipes - Schedule 40  
(Table Number : 29122015-01)**

PVC and CPVC Pipes - Schedule 40						
Model No.	Nominal Pipe Size (inches)	OD (inches)	Min. Wall Thickness (inches)	ID(inches)	Weight(lb/ft)	
					PVC	CPVC
SUSCPVC00840	½	0.840	0.109	0.622	0.16	0.17
SUSCPVC01050	¾	1.050	0.113	0.824	0.21	0.23
SUSCPVC01315	1	1.315	0.133	1.049	0.32	0.34
SUSCPVC01660	1 ¼	1.660	0.140	1.380	0.43	0.46
SUSCPVC01900	1 ½	1.900	0.145	1.610	0.51	0.55
SUSCPVC02375	2	2.375	0.154	2.067	0.68	0.74
SUSCPVC02875	2 ½	2.875	0.203	2.469	1.07	1.18
SUSCPVC03500	3	3.500	0.216	3.068	1.41	1.54
SUSCPVC04500	4	4.500	0.237	4.026	2.01	2.20
SUSCPVC05563	5	5.563	0.258	5.047	2.73	2.84
SUSCPVC06625	6	6.625	0.280	6.065	3.53	3.86
SUSCPVC08625	8	8.625	0.322	7.981	5.39	5.81
SUSCPVC10750	10	10.750	0.365	10.020	7.55	8.24
SUSCPVC12750	12	12.750	0.406	11.938	10.01	10.89
SUSCPVC14000	14	14.000	0.438	13.124	11.80	12.90
SUSCPVC16000	16	16.000	0.500	15.000	15.43	16.90

**Note:**

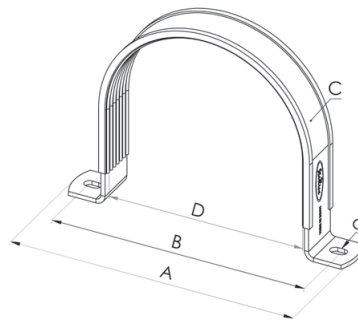
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- Measurements are subject to 5% tolerance.
- To achieve good sound suppression, do not overload fitting.



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**Rubber Lined U Strap Clamps**  
**Catalogue Number : 8000105 : Rev. 01 Dated 07-10-2014**



**DIMENSIONAL DATA FOR RUBBER LINED U-STRAP CLAMP (Table No: B-11-01)**

Model	Size	D (mm)	A (mm)	B (mm)	d Bolt Size	C Strip Size(mm)
SUSC022R	½"	22	79	54	M8	25x2
SUSC028R	¾"	28	85	60	M8	25x2
SUSC035R	1"	35	92	67	M8	25x2
SUSC042R	1 ¼"	42	99	74	M8	25x2
SUSC048R	1 ½"	48	106	81	M8	25x2
SUSC054R		54	112	87	M8	25x2
SUSC060R	2"	60	118	93	M8	25x2
SUSC067R		67	125	100	M8	25x2
SUSC075R	2 ½"	75	146	116	M10	25x3
SUSC082R		82	151	121	M10	25x3
SUSC086R		86	157	127	M10	25x3
SUSC090R	3"	90	160	130	M10	25x3
SUSC094R		94	164	134	M10	25x3
SUSC100R	3 ½"	100	172	142	M10	25x3
SUSC105R		105	177	147	M10	25x3
SUSC110R		110	182	152	M10	25x3
SUSC115R	4"	115	187	157	M10	25x3
SUSC120R		120	192	162	M10	25x3
SUSC126R		126	198	168	M10	25x3
SUSC133R		133	202	172	M10	25x3
SUSC137R		137	206	176	M10	25x3
SUSC142R		142	213	183	M10	25x3
SUSC148		148	219	189	M10	25x3
SUSC155R		155	226	196	M10	25x3
SUSC161R		161	233	203	M10	25x3
SUSC167R	6"	167	240	210	M10	25x3
SUSC173R		173	246	216	M10	25x3
SUSC179R		179	250	220	M10	25x3
SUSC185R		185	257	227	M10	38x3
SUSC190R		190	262	232	M10	38x3

Model	Size	D (mm)	A (mm)	B (mm)	d Bolt Size	C Strip Size(mm)
SUSC198R		198	270	240	M10	38x3
SUSC205R		205	275	245	M10	38x3
SUSC212R		212	281	251	M10	38x3
SUSC219R	8"	219	288	258	M10	38x3
SUSC223R		223	295	265	M10	38x3
SUSC230R		230	300	270	M10	38x3
SUSC241R		241	340	300	M12	38x4
SUSC259R		259	356	316	M12	38x4
SUSC263R		263	363	323	M12	38x4
SUSC273R	10"	273	368	328	M12	38x4
SUSC285R		285	380	340	M12	38x4
SUSC295R		295	392	352	M12	38x4
SUSC315R		315	412	372	M12	38x4
SUSC323R	12"	323	420	380	M12	38x4
SUSC338R		338	434	394	M12	38x4
SUSC345R		345	446	406	M12	38x4
SUSC356R	14"	356	473	423	M16	50x4
SUSC374R		374	491	441	M16	50x4
SUSC387R		387	506	456	M16	50x4
SUSC400R		400	518	468	M16	50x4
SUSC406R	16"	406	524	474	M16	50x4
SUSC420R		420	541	491	M16	50x4
SUSC432R		432	550	500	M16	50x4
SUSC450R		450	567	517	M16	50x4
SUSC456R	18"	456	574	524	M16	50x5
SUSC470R		470	591	541	M16	50x5
SUSC482R		482	600	550	M16	50x5
SUSC508R	20"	508	624	574	M16	50x5
SUSC521R		521	639	589	M16	50x5
SUSC533R		533	651	601	M16	50x5
SUSC559R		559	676	626	M16	50x5
SUSC572R		572	690	640	M16	50x5
SUSC583R		583	702	652	M16	50x5
SUSC610R	24"	610	726	676	M16	50x5
SUSC634R		634	762	712	M16	50x6
SUSC660R		660	788	738	M16	50x6



Rubber Lined U Strap Clamps

#### 1. Compliance:

- 1.1 Federal Specification AS-A-1192 (Type 1)
- 1.2 MSS-SP58 (Type 1)
- 1.3 MSS-SP69
- 1.4 WW-H-171E (Type 1)
- 1.5 EG-ASTMB 633 SC3, BS 1706 FE / ZN 12

#### Note:

- Due to policy of continual improvement, the specifications are subject to change without prior notice.
- Measurements are subject to 5% tolerance.
- To achieve good sound suppression, do not overload fitting.



# Rubber Lined U Strap Clamps

## Selection for Common Pipe / Insulation Sizes (Table No: B-13-01)

Steel Pipe Nominal	Clamp Model for Insulation / RSI Thickness					
	Bare Pipe	19 mm	25 mm	32 mm	38 mm	50 mm
½"	SUSC022R	SUSC060R	SUSC075R	SUSC086R	SUSC100R	SUSC120R
¾"	SUSC028R	SUSC067R	SUSC082R	SUSC094R	SUSC105R	SUSC126R
1"	SUSC035R	SUSC075R	SUSC086R	SUSC100R	SUSC110R	SUSC137R
1 ¼"	SUSC042R	SUSC082R	SUSC094R	SUSC105R	SUSC120R	SUSC142R
1 ½"	SUSC048R	SUSC086R	SUSC100R	SUSC115R	SUSC126R	SUSC148R
2"	SUSC060R	SUSC100R	SUSC110R	SUSC126R	SUSC137R	SUSC161R
2 ½"	SUSC075R	SUSC115R	SUSC126R	SUSC142R	SUSC155R	SUSC175R
3"	SUSC090R	SUSC126R	SUSC142R	SUSC155R	SUSC167R	SUSC190R
4"	SUSC115R	SUSC155R	SUSC167R	SUSC179R	SUSC190R	SUSC219R
5"	SUSC142R	SUSC179R	SUSC190R	SUSC205R	SUSC219R	SUSC241R
6"	SUSC167R	SUSC205R	SUSC219R	SUSC230R	SUSC241R	SUSC273R
8"	SUSC219R		SUSC273R	SUSC285R	SUSC295R	SUSC323R
10"	SUSC273R		SUSC323R	SUSC338R	SUSC345R	SUSC374R
12"	SUSC323R		SUSC374R	SUSC387R	SUSC400R	SUSC420R
14"	SUSC356R		SUSC406R	SUSC420R	SUSC432R	SUSC456R
16"	SUSC406R		SUSC456R	SUSC470R	SUSC482R	SUSC508R
18"	SUSC456R		SUSC508R	SUSC521R	SUSC533R	SUSC559R
20"	SUSC508R		SUSC559R	SUSC572R	SUSC583R	SUSC610R

### 2. Material:

Mild Steel Electro galvanized to 8 - 9 microns confirming to EG ASTM B633 SC3

### 3. Application:

Clamping plain or insulated pipes to standard channel supports such as trapeze hangers, floor stands and wall brackets.

### 4. Features:

Slotted mounting holes for convenient installation.  
Intermediate sizes available to ensure tight installation.

### 5. Selection / Ordering:

- 5.1 Hot Dip Galvanised Finish (Suffix "HDG")
- 5.2 EPDM Lined (Suffix "R")
- 5.3 Epoxy Powder Coated Finish (Suffix "P")
- 5.4 Stainless Steel Construction (Suffix "SS")





**Rubber Lined U Strap Clamp : Selection Table : for PVC and CPVC Pipes - Schedule 40  
(Table Number : 29122015-01)**

PVC and CPVC Pipes - Schedule 40						
Model No.	Nominal Pipe Size (inches)	OD (inches)	Min. Wall Thickness (inches)	ID(inches)	Weight(lb/ft)	
					PVC	CPVC
SUSCPVC00840R	½	0.840	0.109	0.622	0.16	0.17
SUSCPVC01050R	¾	1.050	0.113	0.824	0.21	0.23
SUSCPVC01315R	1	1.315	0.133	1.049	0.32	0.34
SUSCPVC01660R	1 ¼	1.660	0.140	1.380	0.43	0.46
SUSCPVC01900R	1 ½	1.900	0.145	1.610	0.51	0.55
SUSCPVC02375R	2	2.375	0.154	2.067	0.68	0.74
SUSCPVC02875R	2 ½	2.875	0.203	2.469	1.07	1.18
SUSCPVC03500R	3	3.500	0.216	3.068	1.41	1.54
SUSCPVC04500R	4	4.500	0.237	4.026	2.01	2.20
SUSCPVC05563R	5	5.563	0.258	5.047	2.73	2.84
SUSCPVC06625R	6	6.625	0.280	6.065	3.53	3.86
SUSCPVC08625R	8	8.625	0.322	7.981	5.39	5.81
SUSCPVC10750R	10	10.750	0.365	10.020	7.55	8.24
SUSCPVC12750R	12	12.750	0.406	11.938	10.01	10.89
SUSCPVC14000R	14	14.000	0.438	13.124	11.80	12.90
SUSCPVC16000R	16	16.000	0.500	15.000	15.43	16.90

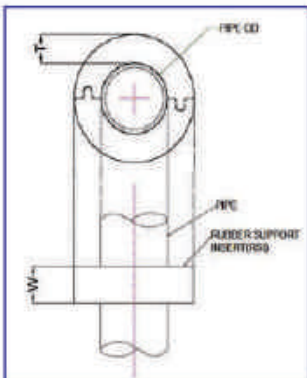
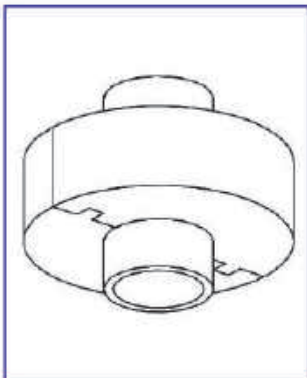
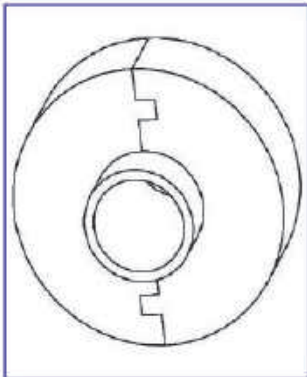
**Note:**

- Due to policy of continual improvement, the specifications are subject to change without prior notice.
- Measurements are subject to 5% tolerance.
- To achieve good sound suppression, do not overload fitting.



## Rubber Support Insert

Catalogue Number : 8000106 : Rev. 03 Dated 28-10-2015



### TEST STANDARDS (Table No: B-14-01)

Sl. No.	Physical Properties	Test Standard	Unit	Specification
01	Hardness	ISO 7619	Shore A	85 +/- 3
02	Specific Gravity		g/cm <sup>3</sup>	(1.3 +/- 0.1)*
03	Tear Strength	ASTM D 624	Kgs/cm	22 min
04	Applicable Temp.	Range -30 deg to 80 deg		
05	Other Properties	Excellent resistance to water, mild acid and alkalis		
06	Tensile Strength	ISO 37	Kgs/cm <sup>2</sup>	52 minium
07	Thermal Conductivity		w/m <sup>0</sup> C	0.16

- \* Optionally 1.6 g/cm<sup>3</sup> available on Request
- Fire Resistant Grade also available on Request

**1. Compliance:**

British Standards, BS 3974 : Part I

**2. Material :**

Compounded Rubber

**3. Application :**

Effective means of preventing crushing of insulation at pipe support points of chilled water, condenser water and domestic hot / cold water installation.

**4. Features :**

- 4.1 Dimensional accuracy is ensured since each set is individually machine moulded.
- 4.2 Green Product.
- 4.3 Product is extremely rigid. Hence resistant to deterioration over a period of time.
- 4.4 Unlike wood, material is non corrosive.
- 4.5 Lower installation cost due to lack of requirement of additional metal sheets for wider load distribution.
- 4.6 Termite control not required.
- 4.7 Tongue and groove arrangement between RSI inserts saves labour cost and time.
- 4.8 Rubber pipe supports also provide an acoustic barrier against transmission of high frequencies.
- 4.9 Rubber support inserts are available for all pipe size and insulation thickness and are integrated with our various type of pipe supports to ensure fast and quality pipe installation.
- 4.10 Density: 1100-1400 Kg / M<sup>3</sup>
- 4.11 Temperature resistance: 20°C - 120°C

**5. Selection / Ordering :**

- 5.1 Nominal pipe size, Pipe OD and insulation thickness.
- 5.2 Refer table for details.



Rubber Support Insert



## RUBBER SUPPORT INSERT

### SELECTION TABLE (Table No.: B-16-01)

Pipe Size		Pipe Size		Standard Width
Steel ( Nominal )	Part No.	Copper (OD)	Part No.	
		16 mm	RSIC16	25 mm
½"	RSIS21	22 mm	RSIC22	25 mm
¾"	RSIS27	28 mm	RSIC28	25 mm
1"	RSIS33	35 mm	RSIC35	25 mm
1 ¼"	RSIS42	42 mm	RSIC42	25 mm
1½"	RSIS48			25 mm
		54 mm	RSIC54	25 mm
2"	RSIS60			25 mm
		67 mm	RSIC67	25 mm
		73 mm	RSIC73	38 mm
2½"	RSIS73	76 mm	RSIC76	38 mm
		80 mm	RSIC80	38 mm
3"	RSIS89			38 mm
		105 mm	RSIC105	38 mm
		108 mm	RSIC108	38 mm
4"	RSIS114			50 mm
5"	RSIS141	140 mm	RSIC140	50 mm
		156 mm	RSIC156	50 mm
		159 mm	RSIC159	50 mm
6"	RSIS168			50 mm
		168 mm	RSIC168	50 mm
8"	RSIS219	219 mm	RSIC219	50 mm
10"	RSIS273			50 mm
12"	RSIS324			50 mm
14"	RSIS356			50 mm
16"	RSIS406			75 mm
18"	RSIS457			75 mm
20"	RSIS508			100 mm
24"	RSIS610			100 mm
30"	RSIS762			100 mm
36"	RSIS914			100 mm
40"	RSIS1016			100 mm

**Note:**

- Due to policy of continual improvement, the specifications are subject to change without prior notice.
- Measurements are subject to 5% tolerance.
- To achieve good sound suppression, do not overload fitting.

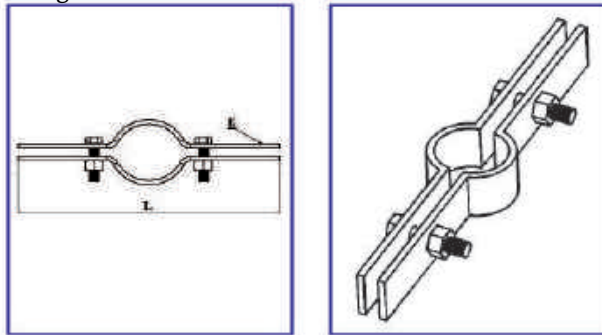


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## Riser Clamp

Catalogue Number : 8000107 : Rev. 02 Dated 22-11-2014



**SELECTION TABLE (Table No: B-17-01)**

Part No.	Pipe Size	Length (L)	Metal Size (mm) (E)	Bolt Size	Max Load Kgs
SRC022	½"	200	4x25	M10	80
SRC028	¾"	210	4x25	M10	90
SRC035	1"	230	4x25	M10	100
SRC040	1 ¼"	260	4x25	M10	120
SRC048	1 ½"	260	4x25	M10	120
SRC060	2"	260	4x25	M10	150
SRC075	2 ½"	290	4x38	M12	200
SRC090	3"	290	4x38	M12	250
SRC100	3 ½"	330	4x38	M12	350
SRC115	4"	330	4x38	M12	350
SRC140	5"	350	6x38	M16	550
SRC168	6"	380	6x38	M16	700
SRC220	8"	470	8x38	M16	900
SRC273	10"	520	10x50	M16	1100
SRC323	12"	580	12x50	M20	1100
SRC355	14"	610	12x50	M20	1600
SRC406	16"	660	16x60	M20	1600
SRC457	18"	710	16x60	M20	1900
SRC508	20"	760	16x60	M20	1900
SRC610	24"	880	16x75	M20	2400
SRC762	30"	1040	16x75	M20	2400
SRC915	36"	1210	16x100	M25	3200

**1. Compliance:**

- 1.1 Federal Specification AS-A-1192 (Type 1)
- 1.2 MSS-SP58 (Type 1)
- 1.3 MSS-SP69
- 1.4 WW-H-171E (Type 1)
- 1.5 EG-ASTMB 633 SC3, BS 1706 FE / ZN 12

**2. Material:**

Mild Steel Electrogalvanised to 8-9 microns confirming to EG-ASTM B 633 SC3

**3. Application:**

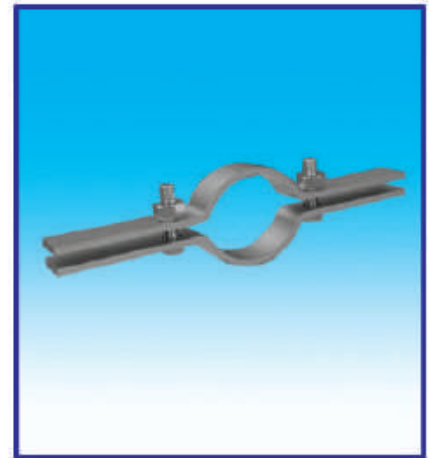
Guide and provide rigid support and ensuring stability under large lateral load for all types of vertical piping.

**4. Features:**

When used as pipe guides, lateral stability is ensured while permitting axial thermal expansion / contraction.

**5. Selection / Ordering:**

- 5.1 Pipe OD and material plus insulation thickness.
- 5.2 Hot Dip Galvanised Finish (Suffix "HDG")
- 5.3 EPDM Lined (Suffix "R")
- 5.4 Epoxy Powder Coated Finish (Suffix "P")
- 5.5 Stainless Steel Construction (Suffix "SS")



Riser Clamp

**Note:**

- Due to policy of continual improvement, the specifications are subject to change without prior notice.
- Measurements are subject to 5% tolerance.
- To achieve good sound suppression, do not overload fitting.



## Riser Clamp for Insulated Pipes

Catalogue Number : 8000129 : Rev. 01 Dated 22-11-2014

### 1. Compliance:

- 1.1 Federal Specification AS-A-1192 (Type 1)
- 1.2 MSS-SP58 (Type 1)
- 1.3 MSS-SP69
- 1.4 WW-H-171E (Type 1)
- 1.5 EG-ASTMB 633 SC3, BS 1706 FE / ZN 12

### 2. Material:

Mild Steel Electrogalvanised to 8-9 microns conforming to EG-ASTM B 633 SC3.

### 3. Application:

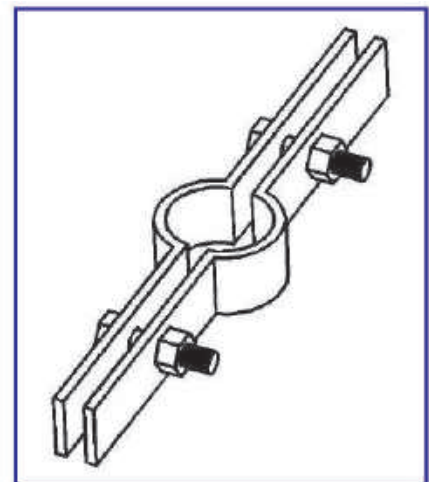
Widely used for vertical risers carrying Hot water, Chilled Water, Cold water, Refrigerants, Dual Temperature, Steam, Air, Gas and Vacuum.

### 4. Features:

- 4.1 Available on all Pipe Sizes
- 4.2 Easy Installation
- 4.3 Positive Load Transfer : Axially Downward
- 4.4 Insulating Structural Inserts for Piping installation
- 4.5 Eliminate Condensation Sweating on Chilled water risers.
- 4.6 Top and Bottom plates provide rigid support and ensuring slip free stability under large lateral loads and shock loads for all type of vertical piping.

### 5. Selection / Ordering:

- 5.1 Pipe OD and material plus insulation thickness.
- 5.2 Hot Dip Galvanised Finish (Suffix "HDG")
- 5.3 EPDM Lined (Suffix "R")
- 5.4 Epoxy Powder Coated Finish (Suffix "P")
- 5.5 Stainless Steel Construction (Suffix "SS")
- 5.6 Copper plate construction (Suffix "Cu")



**SELECTION TABLE - RISER CLAMP FOR INSULATED PIPES**  
**(Table Number : 22112014-01)**

Part No.	Pipe Size	Length (mm)	Metal Size (mm)	Bolt Size	Max Load (Kgs)
RCFIP022	½"	200	4x25	M10	80
RCFIP028	¾"	210	4x25	M10	90
RCFIP035	1"	230	4x25	M10	100
RCFIP040	1 ¼"	260	4x25	M10	120
RCFIP048	1 ½"	260	4x25	M10	120
RCFIP060	2"	260	4x25	M10	150
RCFIP075	2 ½"	290	4x38	M12	200
RCFIP090	3"	290	4x38	M12	250
RCFIP100	3 ½"	330	4x38	M12	350
RCFIP115	4"	330	4x38	M12	350
RCFIP140	5"	350	6x38	M16	550
RCFIP168	6"	380	6x38	M16	700
RCFIP220	8"	470	8x38	M16	900
RCFIP273	10"	520	10x50	M16	1100
RCFIP323	12"	580	12x50	M20	1100
RCFIP355	14"	610	12x50	M20	1600
RCFIP406	16"	660	16x60	M20	1600
RCFIP457	18"	710	16x60	M20	1900
RCFIP508	20"	760	16x60	M20	1900
RCFIP610	24"	880	16x75	M20	2400
RCFIP762	30"	1040	16x75	M20	2400
RCFIP915	36"	1210	16x100	M25	3200

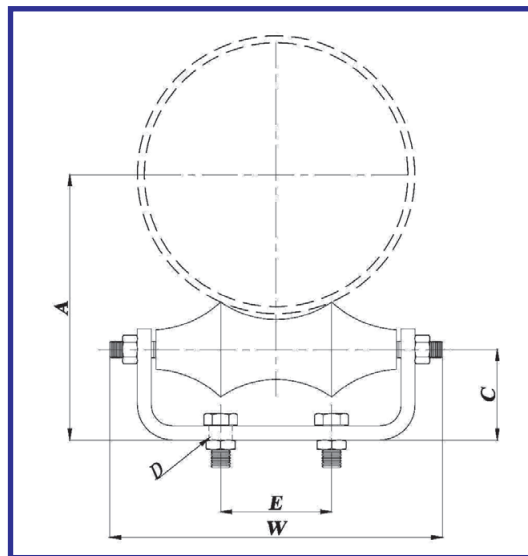
**Note:**

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- Measurements are subject to 5% tolerance.



## Roller Chair (SPRC)

Catalogue Number : 8000108 : Rev. 01 Dated 19-02-2015



**SELECTION TABLE** (Table No: RC42-1)

Model	Pipe Dia	Dimensions						Max. Load (Kg)
		W	A	E	C	Material	D	
SPRC 50	2"	110	80	35	40	6 x 32	13	360
SPRC 75	3"	145	100	50	45	6 x 32	13	360
SPRC 100	4"	180	120	50	50	8 x 38	16	520
SPRC 125	5"	215	135	75	50	8 x 38	16	520
SPRC 150	6"	250	160	80	60	10 x 50	16	520
SPRC 200	8"	285	205	85	75	10 x 50	20	1250
SPRC 250	10"	345	245	130	90	12 x 50	20	1250
SPRC 300	12"	395	295	140	105	12 x 50	20	1600
SPRC 350	14"	440	330	165	120	12 x 60	24	1600
SPRC 400	16"	480	375	210	140	12 x 75	24	3600
SPRC 450	18"	525	420	235	155	12 x 75	24	3600
SPRC 500	20"	555	450	260	165	12 x 75	24	3600
SPRC 600	24"	665	540	310	200	16 x 100	24	5300
SPRC 750	30"	690	615	310	200	20 x 100	24	7400
SPRC 900	36"	840	695	310	200	20 x 100	24	7400

## 1 Compliance

- 1.1 Conforming to MSS-SP69, MSS-SP58(Type 44), BS 3974:part1, Federal Specifications WW-H-171E & A-A-1192A Type 45
- 1.2 EG to ASTM B633SC3, BS 1706 FE/ZN12

## 2. Application

- 2.1 The roller chairs are used for long horizontal pipe lines which are subjected for temperature fluctuations. These are designed to compensate longitudinal movement of pipe line due to expansion or contraction of both insulated and non-insulated piping. These rollers are typically used in large district cooling/heating plant distribution piping, process pipe lines boilers piping etc.

## 3. Product Features

- 3.1 Starline roller chairs are made from solid steel iron rollers for rigid pipe supporting.
  - 3.2 The rollers are available in wide range of material specification
    - 3.2.1 Fully electrogalvanized cast iron rollers are standard.
    - 3.2.2 Stainless steel roller chair (suffix "SS")
    - 3.2.3 Nylon roller chair (suffix "NL")
    - 3.2.4 Hot dip galvanized roller chair(suffix "HDG")
    - 3.2.5 Epoxy powder coated roller chair (suffix "EP")
  - 3.3 The roller pin and rods are made from high tensile steel fully electrogalvanized as standard / hot dip galvanized as optional.
  - 3.4 Optional pipe guide assembly shall be provided to protect the piping in case of water hammer and external vibrations.
4. Note:Insulation protection shield/saddle shall be used under insulation to support insulated piping.



**Roller Chair (SPRC)**



**Optional  
Pipe Guide Assembly**

### **Note:**

- Due to policy of continual improvement, the specifications are subject to change without prior notice.
- Measurements are subject to 5% tolerance.
- To achieve results, do not overload.

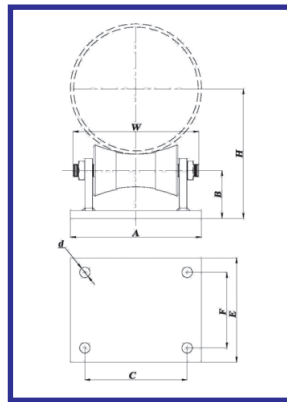


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## Roller Stand

Catalogue Number : 8000109 : Rev. 01 Dated 19-02-15



**SELECTION TABLE** (Table No: RS190215-01)

Model	Steel Pipe Nominal	Dimensions (mm)								Load (kg)
		H*	W	A	B	C	E	F	d	
SRS4-6	4"	120	160	150	50	115	135	100	16	520
	5"	136								
	6"	152								
SRS8-10	8"	213	235	215	80	160	165	110	20	1250
	10"	242								
SRS12-14	12"	283	300	275	92	220	200	145	20	1600
	14"	302								
SRS16-20	16"	340	340	310	100	245	215	150	24	3600
	18"	368								
	20"	396								
SRS22-24	24"	455	390	340	110	265	240	165	24	5300
SRS26-30	30"	545	470	430	118	345	270	185	28	7400
SRS32-34	34"	605	490	465	123	380	285	200	28	7400
SRS36-42	36"	635	540	500	125	415	300	215	28	10300
	42"	720								
SRS48-54	48"	800	580	550	135	465	330	245	28	13100
	54"	880								
SRS60-66	60"	970	620	600	155	500	375	275	35	19300
	66"	1046								

\* Dimension 'H' may vary marginally depending upon the effective OD of supported pipe.  
 · For insulated pipe, please select the Roller Stand Model based on effective pipe OD.

## 1. Compliance

- 1.1 Conforming to MSS-SP69, MSS-SP58(Type 44), BS 3974:part1, Federal Specifications WW-H-171E & A-A-1192A Type 45
- 1.2 EG to ASTM B633SC3, BS 1706 FE/ZN12

## 2. Application

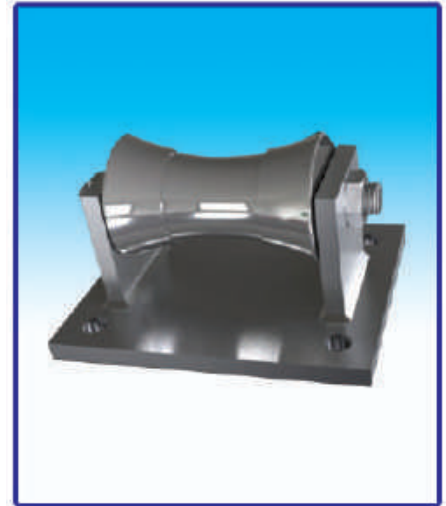
- 2.1 The Roller Stands are used for long horizontal pipe lines which are subjected for temperature fluctuations. These are designed to compensate longitudinal movement of pipe line due to expansion or contraction of both insulated and non-insulated piping. These Roller Stands are typically used in large district cooling / heating plant distribution piping, process pipe lines boilers piping etc.

## 3. Product Features

- 3.1 Starline Roller Stands are made from solid steel iron rollers for rigid pipe supporting.
- 3.2 The Roller Stands are available in wide range of material specification
  - 3.2.1 Fully electrogalvanized cast iron Roller Stands are standard.
  - 3.2.2 Stainless steel Roller Stands (suffix "SS")
  - 3.2.3 Nylon Roller Stands (suffix "NL")
  - 3.2.4 Hot dip galvanized Roller Stands (suffix "HDG")
  - 3.2.5 Epoxy powder coated Roller Stands (suffix "EP")
- 3.3 The roller pin and rods are made from high tensile steel fully electrogalvanized as standard / hot dip galvanized as optional.
- 3.4 Optional pipe guide assembly shall be provided to protect the piping in case of water hammer and external vibrations.

## 4. Note:

Insulation protection shield / saddle shall be used under insulation to support insulated piping.



**Roller Stand**

## Note:

Due to policy of continuous improvement, the specifications are subject to change without prior notice.



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## One Piece Channel Clip

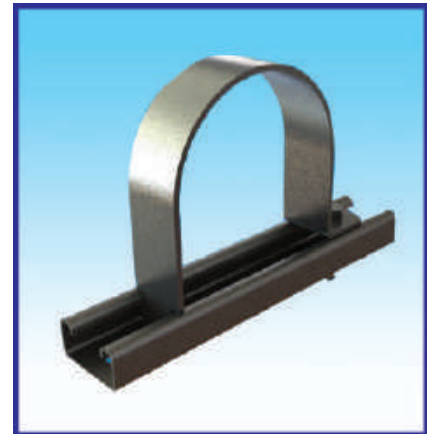
Catalogue Number : 8000128 : Rev. 02 Dated 18-Jan. 2016

### 1 Construction Features:

- 1.1 Used for Parallel Piping mounted on Channels
- 1.2 Quick Installation Design

### 2. Technical Data:

- 2.1 Pre Galvanised - Zinc Coating conforms to A A653 Grade 90
- 2.2 Electro Galvanised as per ASTM B 633 Standards
- 2.3 Hot Dip Galvanised - Conforming to ASTM A123 or A153



### Selection Table - One Piece Channel Clip Table Number : 18011602

Part No.	Steel Pipe Size	Strip Size (mm)
SCC138022	½"	2 x 32
SCC138028	¾"	2 x 32
SCC138035	1"	2 x 32
SCC138040	1 ¼"	2 x 32
SCC138048	1 ½"	2.5 x 32
SCC138060	2"	2.5 x 32
SCC138075	2 ½"	2.5 x 32
SCC138090	3"	2.5 x 32
SCC138100	3 ½"	2.5 x 32
SCC138115	4"	2.5 x 32
SCC138168	6"	2.5 x 32

**Note:**

Due to policy of continuous improvement, the specifications are subject to change without prior notice.



## Offset / Extended Clamps

Catalogue Number : 8000115 : Rev. 01 Dated 19-01-2016

### 1. Compliance:

- 1.1 Galvanising to ASTM B633 SC3, BS 1706 FE/ZN 12

### 2. Application:

Clamps designed for installation of pipe lines at fixed or adjustable distance away from walls or floor.

### 3. Product Features:

- 3.1 Offset clamps are used for fixing pipes at fixed distance "H" from wall or floor.  
3.2 Extended pipe clamps, as shown, permit adjustment of distance from wall or floor at site by cutting and/or bending the legs suitably.

### 4. Material: Steel

Finish - Electro Galvanised

### 5. Options: Epoxy powder coated finish (add suffix "P")

EPDM Lined (add suffix "R")

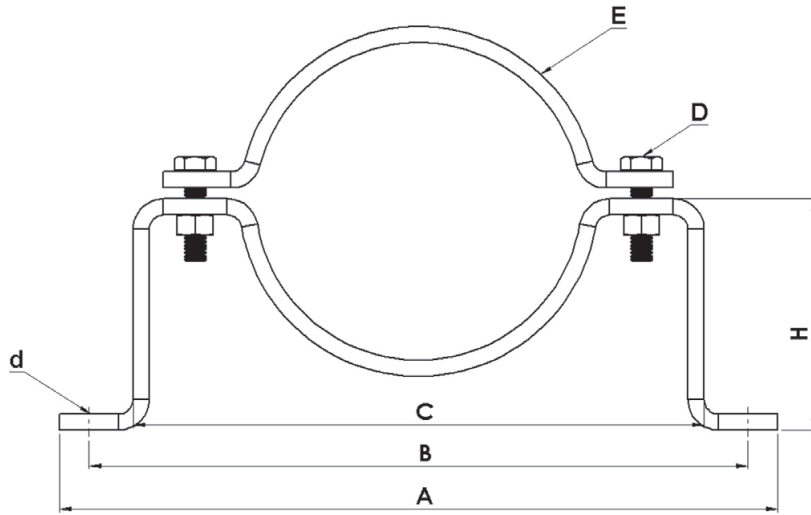
HOT DIP galvanized (add suffix "HDG")

Stainless steel (add suffix "SS")

### 6. Ordering

- 6.1 Specify the type of clamp, model number and finish





**SELECTION TABLE FOR OFFSET / EXTENDED CLAMPS (Table No. : 190116)**

Model	Steel Pipe Nom(OD)	Dimensions (mm)							Max Load (kg)
		A	B	C	D	E	H	d	
OPC/EPC20	¾" (27mm)	178	148	108	M10	4.5x25	80	11	85
OPC/EPC25	1" (34mm)	184	154	114	M10	4.5x25	80	11	85
OPC/EPC30	1-1/4" (42mm)	192	162	122	M10	4.5x25	80	11	85
OPC/EPC40	1-1/2" (48mm)	198	168	128	M10	4.5x25	80	11	110
OPC/EPC50	2" (60mm)	210	180	140	M10	4.5x25	80	11	150
OPC/EPC65	2-1/2" (76mm)	265	225	175	M12	6x25	110	14	180
OPC/EPC75	3" (89mm)	280	240	190	M12	6x25	110	14	200
OPC/EPC100	4" (114mm)	305	265	215	M12	6x25	110	14	250
OPC/EPC125	5" (140mm)	380	330	265	M16	6x40	135	18	300
OPC/EPC150	6" (165 mm)	405	355	290	M16	6x40	135	18	350
OPC/EPC200	8" (219mm)	463	413	348	M16	6x50	165	18	400

**Note:**

1. Clamps for other pipe sizes available on application. Please specify effective pipe OD, including insulation, if present.
2. Offset clamps with customized height "H" available on application.
3. Extended clamps with longer legs available on application.



**Note:**

Due to policy of continuous improvement, the specifications are subject to change without prior notice.

## Purlin Clamp

Catalogue Number : 8000130 : Rev. 01 Dated 31-07-2017

**1. Material :**

Mild Steel electrogalvanised to 8-9 Micron thickness conforming to EG-ASTM B633 SC3

**2. Application :**

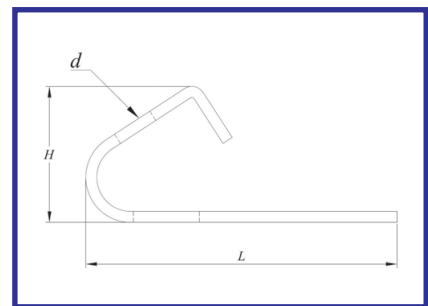
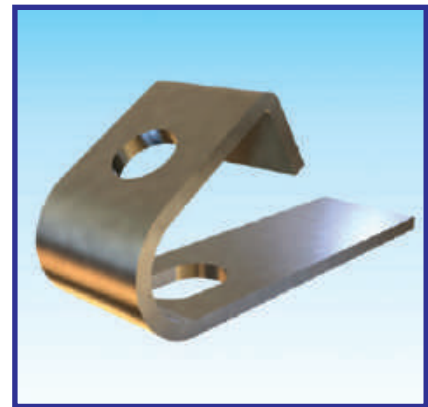
- 2.1 Electrical Fixing and Fastening
- 2.2 Acoustical, Ceiling and Partitioning
- 2.3 HVAC, Plumbing and Refrigeration
- 2.4 Fire Sprinkler.
- 2.5 Lighting and Plumbing Fixtures.

**3. Features :**

- 3.1 Easy Installation. This fixture doesn't require drilling or notching.
- 3.2 The clamps are positively latched using nut and bolt.

**4. Selection / Ordering :**

- 4.1 Hot Dip Galvanised Finish (Suffix "HDG")
- 4.2 Electro Galvanised (Standard)
- 4.3 Epoxy Powder Coated Finish (Suffix "P")
- 4.4 Stainless Steel Construction (Suffix "SS")



**Selection Table - Purlin Clamp**  
**Table Number : B-05082017**

SNo.	Description	Length – L (mm)	Dia – d (mm)	Thickness (mm)	Width (mm)	Height - H (mm)	Load in Kg
01	Purlin Clamp	85	11.5	3	25	37	25

**Note:**

- Due to policy of continuous improvement, the specifications are subject to change without prior notice
- Measurements are subject to 5% tolerance.
- To achieve good sound suppression, do not overload fitting.

## Pipe Stanchion Saddle with U Bolt

Catalogue Number : 8000119 : Rev. 01 Dated 03-08-2017

### 1. Compliance:

- 1.1 US Standards MSS-SP58 (Type 37)
- 1.2 MSS-SP69
- 1.3 EG to ASTM B633 SC3
- 1.4 BS 1706 FE/ZN 12

### 2. Application:

For support of individual horizontal pipes close to the floor. Supplied complete with U Bolt for securing supported pipe firmly to the saddle.

### 3. Product Features:

- 3.1 U-Bolts are available with EPDM Sleeve, to prevent contact between dissimilar materials when used with copper, plastic, aluminium or glass pipe.
- 3.2 Besides the table below, we offer intermediate sizes designed to closely fit the effective pipe OD for any insulation thickness.

### 4. Material:

Steel Finish -  
 Electro Galvanised post manufacture.

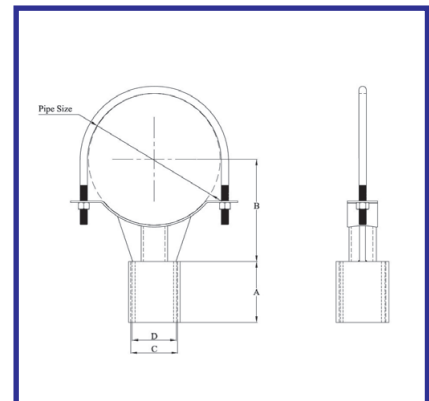
- 5. Options:** U-Bolt with EPDM Sleeve (suffix "R")  
 Hot Dip Galvanised finish (suffix "HDG")  
 Stainless Steel construction (suffix "SS")

### 6. Selection / Ordering:

- 6.1 For usage with plain piping other than steel, please provide details of pipe material and OD.
- 6.2 For insulated pipe, please specify effective OD or pipe size plus insulation thickness. Standard (as below) or intermediate models will be selected as appropriate.
- 6.3 Where Starline Rubber Support Inserts are used, specifying matching SPSS Saddles will suffice.
- 6.4 SPFS Models can be selected from the table below.

### 7. Installation Guidelines:

- 7.1 Starline Pipe Stanchion Saddle is designed to be used in conjunction with Pipe Floor Stanchions (please refer to Starline Pipe Floor Stanchions catalogue for details)
- 7.2 Pipe Saddle can be welded to PFS after final positioning of pipe.
- 7.3 If adjustment of pipe level is required after installation, Adjustable Pipe Stanchion Saddles should be ordered (please refer to Starline PSSA catalogue for details)



**SELECTION TABLE FOR PIPE STANCHION SADDLES**  
(Table No. : 30031502)

Model	Steel Pipe Nominal	Dimensions (mm)			
		A	B*	D	C
SPSS 50	2"	100	86	48	50
SPSS 65	2-1/2"	100	94	48	50
SPSS 75	3"	100	101	48	50
SPSS 100	4"	100	116	48	50
SPSS 125	5"	100	129	60	65
SPSS 150	6"	100	142	60	65
SPSS 200	8"	100	170	73	75
SPSS 250	10"	100	199	73	75
SPSS 300	12"	100	224	73	75
SPSS 350	14"	100	244	100	100
SPSS 400	16"	100	269	100	100
SPSS 450	18"	100	294	100	100
SPSS 500	20"	100	320	114	125
SPSS 600	24"	100	371	114	125
SPSS 750	30"	100	447	114	125
SPSS 900	36"	100	524	114	125

**Note:**

- Dimension "B" would vary marginally from given figures depending on the effective OD of supported pipe.
- Due to policy of continuous improvement, the specifications are subject to change without prior notice.



# Vibration Isolators



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**E-mail: [customerservice@starline.in](mailto:customerservice@starline.in), [www.starlinesupports.com](http://www.starlinesupports.com)**

**Factory: Sree Sai Krithika Industrial Estate  
4 / 293, S.F. No. 221 & 91, Sreerapalayam,  
Post - Podipalayam, Coimbatore, Tamil Nadu, India - 641 105**



## Cased Spring Mount

### 25 mm & 50 mm Standard Deflection

Catalogue Number : 9000100 : Rev. 07 Dated 23-06-2021

#### 1. Compliance:

- 1.1 Designed to BS 1726 -1 : 1987
- 1.2 Tolerance to BS 1726-1 : 2002
- 1.3 SAE and ASHRAE Guidelines for Vibration Isolation

#### 2. Application:

Cased Spring Mounts are used for isolating floor mounted sources of noise and vibration near critically quiet areas. These mounts are combination of Neoprene and Spring. Hence it can isolate audible / inaudible noise and vibration produced from floor mounted Mechanical Equipments such as Reciprocating Compressors, Close Coupled and Base Mounted Pumps, Packaged Air Handling Units, Condensing Units, Roof Top Air Handling Units, Air Cooled / Water Cooled Chillers, Centrifugal / Axial Fans, Internal Combustion Engines, Generators, Drop Hammers, Punch Presses upto static deflection requirement of upto 50 mm.

#### 3. Product Features:

- 3.1 Spring elements are designed to operate without Spring Buckling and shall have minimum of 50% overload capacity. Horizontal Stiffness is designed to have 85% to 100% of vertical stiffness with working deflection of maximum 60% at Rated load.
- 3.2 Spring mount has external leveling arrangements to ensure equipment is in level condition after installation.
- 3.3 Deflection can be provided for 25 mm and 50 mm at Rated Load.
- 3.4 Inner walls of lower casing have resilient rubber Snubbers which
  - 3.4.1 Provides a smooth guide for the top casing.
  - 3.4.2 Prevents metal to metal contact.
  - 3.4.3 Limits lateral movement during startups, shutdown and due to horizontal wind load.
- 3.5 Thick Ribbed Neoprene Pads are provided below the springs which provide noise barrier for high frequencies which may otherwise be transmitted to building structures. 10 mm thick Neoprene Sound Pads are provided.
- 3.6 Springs are powder coated with individual colours to facilitate identification.
- 3.7 Springs and Casings are powder coated upto 100 Microns with 1,000 Hours of Salt Spray Rating conforming to ASTM B-117.  
Option:
  - 3.7.1 Frame Hot Dip Galvanised (Prefix Part Number with "HDG")
  - 3.7.2 Spring Neoprene Coated (Prefix Part Number with "N")
  - 3.7.3 Spring Plastic Coated (Prefix Part Number with "P")

#### 4. Selection / Ordering:

While calculating operating equipment weight, variables such as weight of water, weight of pipe fittings, valves etc should be taken into consideration to arrive at the actual loading on the spring.

#### 5. Installation Guidelines:

Detailed installation guidelines are included in the spring mount package.



## SELECTION TABLE FOR 25 mm DEFLECTION CASED SPRING MOUNTS (Table No: SCSM25-181220)

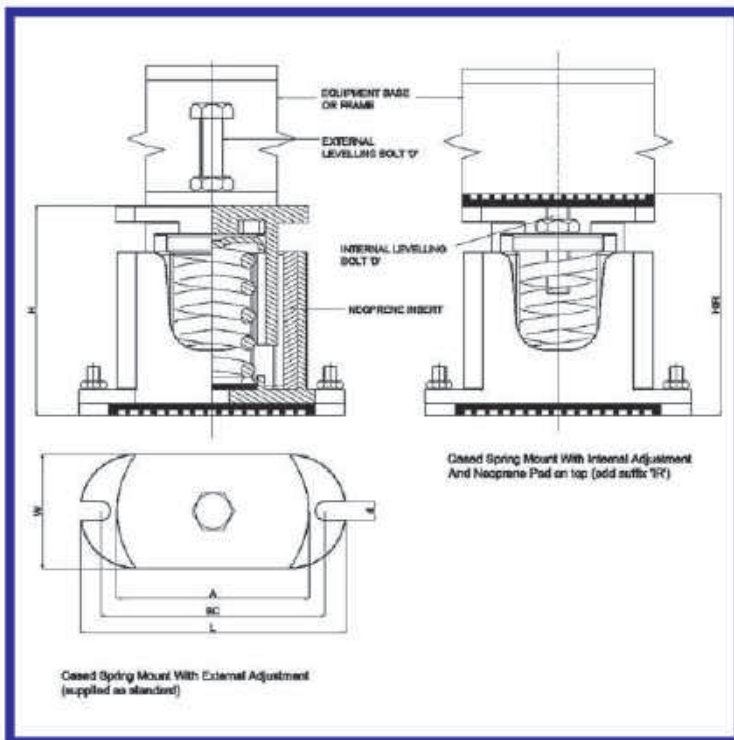
Isolator Model	Rated Load (kg)	Spring Colours	Dimensions (mm)							d
			L	W	H'	HIR'	A	BC	D	
SCSM25-A25	25	Green	147	55	114	128	106	116	8	M10
SCSM25-A50	50	Black								
SCSM25-A75	75	White								
SCSM25-A100	100	Blue								
SCSM25-A150	150	Grey								
SCSM25-A200	200	Orange								
SCSM25-A250	250	Grey#								
SCSM25-A300	300	Orange#								
SCSM25-B200	200	Green	213	74	143	146	160	178	10	M12
SCSM25-B250	250	Brown								
SCSM25-B300	300	Grey								
SCSM25-B400	400	Purple								
SCSM25-B500	500	Black								
SCSM25-B600	600	Yellow								
SCSM25-B700	700	Yellow***								
SCSM25-C400	400	Brown								
SCSM25-C500	500	Grey	225	86	143	146	174.5	188.3	14	M14
SCSM25-C600	600	Orange								
SCSM25-C700	700	Green								
SCSM25-C800	800	Brown*								
SCSM25-C900	900	Grey*								
SCSM25-C1000	1000	Orange*								
SCSM25-C1100	1100	Green*								
SCSM25-C1200	1200	Orange**								
SCSM25-C1300	1300	Green**								
SCSM2-2C1400	1400	Green								
SCSM25-2C1600	1600	Brown*	310	90	160	180	250	280	14	M14
SCSM25-2C1800	1800	Grey*								
SCSM25-2C2000	2000	Orange*								
SCSM25-2C2200	2200	Green*								
SCSM25-2C2400	2400	Orange**								
SCSM25-2C2600	2600	Green**								
SCSM25-4C2800	2800	Green								
SCSM25-4C3200	3200	Brown*								
SCSM25-4C3600	3600	Grey*	325	170	160	180	310	295	24	M36
SCSM25-4C4000	4000	Orange*								
SCSM25-4C4400	4400	Green*								
SCSM25-4C4800	4800	Orange**								
SCSM25-4C5200	5200	Green**								

- # with RED Core Spring
- \* with WHITE Core Spring
- \*\* with BLUE Core Spring
- \*\*\* with BLACK Core Spring



## SELECTION TABLE FOR 50 mm DEFLECTION CASED SPRING MOUNTS (Table No: SCSM50-181220)

Isolator Model	Rated Load (kg)	Spring Colours	Dimensions (mm)							
			L	W	H	HIR	A	BC	D	d
SCSM50-A010	10	Brown	165	90	140	158	150	186	14	M12
SCSM50-A015	15	Orange								
SCSM50-A030	30	Green								
SCSM50-A040	40	Red								
SCSM50-A060	60	White								
SCSM50-A100	100	Blue								
SCSM50-A150	150	Black								
SCSM50-A200	200	Yellow								
SCSM50-A250	250	Purple								
SCSM50-A300	300	Grey								
SCSM50-C200	200	Red								
SCSM50-C250	250	Orange								
SCSM50-C300	300	Brown								
SCSM50-C400	400	Green								
SCSM50-C500	500	Yellow								
SCSM50-C600	600	Yellow*								
SCSM50-C700	700	Yellow**								
SCSM50-C800	800	Yellow***								
SCSM50-2C1000	1000	Yellow	350	100	185	220	250	290	16	M16
SCSM50-2C1200	1200	Yellow*								
SCSM50-2C1400	1400	Yellow**								
SCSM50-2C1600	1600	Yellow***								
SCSM50-4C2000	2000	Yellow	350	170	185	220	310	295	20	M24
SCSM50-4C2400	2400	Yellow*								
SCSM50-4C2800	2800	Yellow**								
SCSM50-4C3200	3200	Yellow***								



- \* with WHITE Core Spring
- \*\* with BLUE Core Spring
- \*\*\* with BLACK Core Spring

Cased Sprint Mount  
25 mm & 50 mm  
Deflection

**Note:**

- Due to policy of continuous improvement, the specifications are subject to change without prior notice.
- Measurements are subject to 5% tolerance.
- To achieve good sound suppression, do not overload fitting.



## Open Spring Mounts - Metal Based

Catalogue Number : 9000101 : Rev. 04 Dated 20-06-2020

### 1. Compliance:

- 1.1 Designed to BS 1726 -1 : 1987
- 1.2 Tolerance to BS 1726-1 : 2002
- 1.3 SAE and Ashrae Guidelines for Vibration Isolation

### 2. Application:

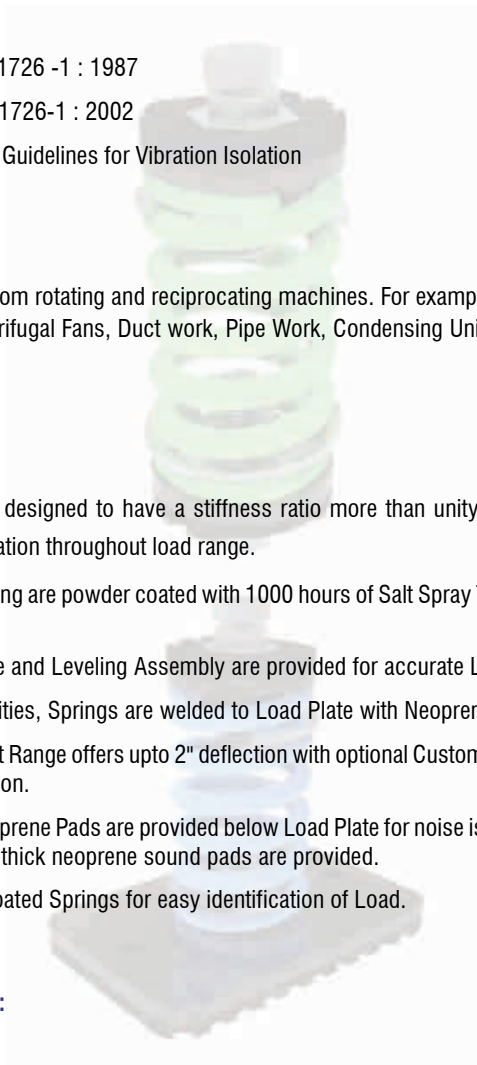
To isolate vibration from rotating and reciprocating machines. For example : Air Handling Units, Axial and Centrifugal Fans, Duct work, Pipe Work, Condensing Units, Pump Units, Chillers, Genset etc.

### 3. Product Features:

- 3.1 The Springs are designed to have a stiffness ratio more than unity which ensures buckle free operation throughout load range.
- 3.2 Springs and Casing are powder coated with 1000 hours of Salt Spray Test conforming to ASTM B-117.
- 3.3 Upper Load Plate and Leveling Assembly are provided for accurate Leveling.
- 3.4 In heavier capacities, Springs are welded to Load Plate with Neoprene Pad.
- 3.5 Standard Product Range offers upto 2" deflection with optional Custom made Isolators of higher deflection.
- 3.6 Thick ribbed Neoprene Pads are provided below Load Plate for noise isolation and non skid. 10-18 mm thick neoprene sound pads are provided.
- 3.7 Colour Coded Coated Springs for easy identification of Load.

### 4. Selection / Ordering:

Static Load.



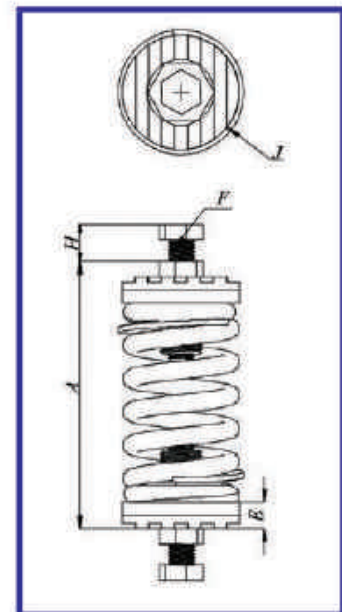
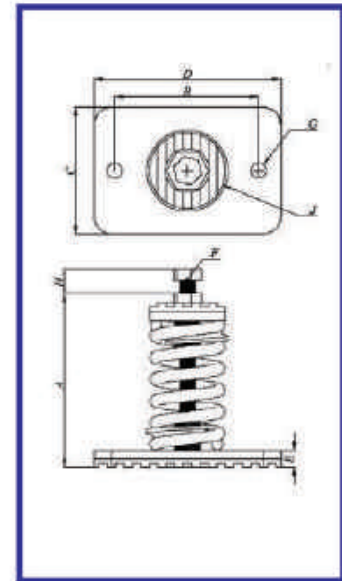
**SELECTION TABLE (Table No: C-05-01)**  
**Isolation Efficiency at Typical Machine Speeds**

M/C Speed (rpm)	Efficiency %		
	15mm Defl.	25mm Defl.	50mm Defl.
300	Do not use	34.0	75.2
500	68.7	83.3	92.3
750	88.1	93.2	96.7
1000	93.7	96.3	98.2
1200	95.5	97.4	98.7
1500	97.3	98.4	99.2
1750	98.0	99.8	99.4
2000	98.5	99.1	99.5

The above figures are theoretical values only based on the vertical natural frequency of the spring system assuming in infinitely stiff structural supports. The effects of high frequency spring coil resonances on low frequency performance are also ignored.

**Technical Specifications for Open Spring Mount - Metal Based**  
**Table Number : C-05-200620**

Part No.	Colour Code	Rated Load (kg)	Deflection at Rated Load(mm)	Dimensions (mm)								
				A	B	C	D	E	F	G	H	J
SOSMMB25-A25	Green	25	25	105	85	75	110	10	M10	9	20	45
SOSMMB25-A50	Black	50	25									
SOSMMB25-A100	Blue	100	25									
SOSMMB25-A150	Grey	150	25									
SOSMMB25-A200	Orange	200	25									
SOSMMB25-B200	Green	200	25	140	110	100	140	10	M14	13	27	62
SOSMMB25-B250	Brown	250	25									
SOSMMB25-B300	Grey	300	25									
SOSMMB25-B400	Purple	400	25									
SOSMMB25-B500	Black	500	25									
SOSMMB25-B600	Yellow	600	25	140	165	130	200	12	M16	17	30	72
SOSMMB25-C400	Brown	400	25									
SOSMMB25-C500	Grey	500	25									
SOSMMB25-C600	Orange	600	25									
SOSMMB25-C700	Green	700	25									



**Note:**

- Due to policy of continual improvement, the specifications are subject to change without prior notice.
- Measurements are subject to 5% tolerance.
- To achieve good sound suppression, do not overload fitting.



## Spring Hanger - Light Duty

Catalogue Number : 9000102 : Rev. 08 Dated 07-12-2021

### 1. Compliance:

- 1.1 Designed to BS 1726 -1 : 1987
- 1.2 Tolerance to BS 1726-1 : 2002
- 1.3 SAE and Ashrae Guidelines for Vibration Isolation

### 2. Application:

Generally for light duty applications like small fans, humidifiers, variable air volume boxes, small fan coil units, small size piping and air ducting in mechanical rooms.

### 3. Product Features:

- 3.1 The Springs are designed to have a stiffness ratio more than unity which ensures buckle free operation throughout load range.
- 3.2 Suspension rod misalignment (30 degree arc) is compensated in hanger design.
- 3.3 Locking rubber bush centralizes the spring and prevents dislocation.
- 3.4 Springs are powder coated with appropriate color coding to facilitate identification.
- 3.5 Frame is made of G.I. steel and powder coated to 100 microns paint thickness (exceeds 1000 hours of salt spray test) and conforming to ASTM B-117.

Options:

- 3.5.1 Frame and Spring Hot Dip Galvanised (Prefix Part Number with "HDG")
- 3.5.2 Spring Neoprene Coated (Prefix Part Number with "N")
- 3.5.3 Spring Plastic Coated (Prefix Part Number with "P")
- 3.5.4 Frame and Spring Hot Dip Galvanised with Neoprene Rubber Coating (Prefix Part Number with "HDGN")

- 3.6 The Springs are designed to have additional 50% of rated load at 1.5 of rated deflection.

### 4. Selection / Ordering:

Point load (Calculated to include all variables such as weight of water in pipe lines etc if applicable).

### 5. Installation Guide lines:

Included in packaging.

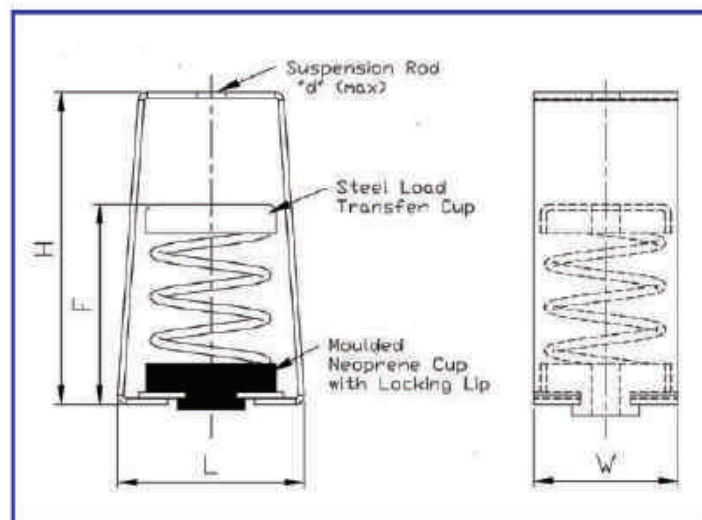


## SELECTION TABLE FOR SPRING HANGERS - LIGHT DUTY (Table No: SHLD-24-11-20)

Isolator Model	Rated Deflection	Rated Load (kg)	Spring Colours	Dimension (mm)				
				L	W	F*	H	d(max)
SSHL-M6	13 mm	6	Orange	65	50	54	85	M10
SSHL-M9		9	Grey					
SSHL-M15		15	Blue					
SSHL-M21		21	Green					
SSHL-M28		28	White					
SSHL-P6	25 mm	6	Green	65	50	70	105	M10
SSHL-P9		9	Red					
SSHL-P15		15	Black					
SSHL-P21		21	Yellow					
SSHL-P28		28	Blue					
SSHL-P35		35	Grey					
SSHL-P50		50	Orange					

\* Represents average free height in each grouping of models. Height of some models in group may vary slightly from this figure.

### Spring Hanger - Light Duty



**Note:**

- Due to policy of continuous improvement, the specifications are subject to change without prior notice.
- Measurements are subject to 5% tolerance.
- To achieve good sound suppression, do not overload fitting.



## Spring Hanger 25 mm Standard Deflection

Catalogue Number : 9000103 : Rev. 04 Dated 18-06-2020

### 1. Compliance:

- 1.1 Designed to BS 1726 -1 : 1987
- 1.2 Tolerance to BS 1726-1 : 2002
- 1.3 SAE and Ashrae Guidelines for Vibration Isolation

### 2. Application:

Spring Hangers are used for isolation of vibration produced by suspended mechanical equipment, low speed suspended fan, transformers, duct work, piping etc... These are especially recommended for isolating any suspended source of audible / inaudible noise and vibration with minimum static deflection requirement exceeding 13 mm and up to 25 mm.

### 3. Product Features:

- 3.1 The Springs are designed to have a stiffness ratio more than unity which ensures buckle free operation throughout load range.
- 3.2 Suspension rod misalignment (30 degree arc) is compensated in hanger design.
- 3.3 Locking rubber bush centralizes the spring and prevents dislocation.
- 3.4 Springs are powder coated with appropriate color coding to facilitate identification.
- 3.5 Frame is made of G.I. steel and powder coated to 100 microns paint thickness (exceeds 1000 hours of salt spray test) and conforming to ASTM B-117.  
Option : Frame Hot Dip Galvanized. Part Number prefix with "HDG".  
Spring Neoprene Coated. Part Number prefix with "N".  
Spring Plastic Dip Coated. Part Number prefix with "P".
- 3.6 Isolation Brackets are capable of overloading upto 500%.
- 3.7 The Springs are designed to have additional 50% of rated load at 1.5 of rated deflection.

### 4. Selection / Ordering:

Point load (Calculated to include all variables such as weight of water in pipe lines etc. if applicable).

### 5. Installation Guide lines:

Included in packaging.



SPRING HANGER 25MM DEFLECTION  
A, B & C BODIES

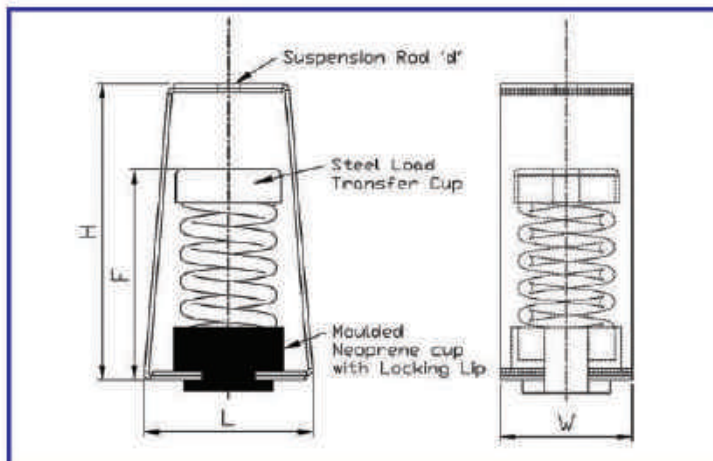
## SELECTION TABLE - 25 MM DEFLECTION SPRING HANGERS (Table No: C-09-180620)

Isolator Model	Rated Load (kg)	Spring Colours	Dimensions (mm)				
			L	W	F	H	d
SSH25-A25	25	Green	75	60	80	120	M12
SSH25-A50	50	Black					
SSH25-A75	75	White					
SSH25-A100	100	Blue					
SSH25-A150	150	Grey					
SSH25-A200	200	Orange					
SSH25-B200	200	Green	90	80	105	160	M16
SSH25-B250	250	Brown					
SSH25-B300	300	Grey					
SSH25-B400	400	Purple					
SSH25-C400	400	Brown	90	80	105	160	M20
SSH25-C500	500	Grey					
SSH25-C600	600	Orange					
SSH25-C700	700	Green					
SSH25-2C800	800	Brown					
SSH25-2C1000	1000	Grey					
SSH25-2C1200	1200	Orange	200	100	105	170	M30
SSH25-2C1400	1400	Green					
SSH25-2C1600	1600	Brown *					
SSH25-2C1800	1800	Grey*					
SSH25-2C2000	2000	Orange*					
SSH25-2C2200	2200	Green*					
SSH25-2C2400	2400	Orange**	200	100	105	170	M36

\* With White Core Spring

\*\* With Blue Core Spring

Spring Hangers with Higher Capacity available on application



Spring Hanger  
25 mm Standard Deflection

**Note:**

- Due to policy of continuous improvement, the specifications are subject to change without prior notice.
- Measurements are subject to 5% tolerance.
- To achieve good sound suppression, do not overload fitting.



## Spring Hanger 50 mm Standard Deflection

Catalogue Number : 9000104 : Rev. 05 Dated 23-06-2021

### 1. Compliance:

- 1.1 Designed to BS 1726 -1 : 1987
- 1.2 Tolerance to BS 1726-1 : 2002
- 1.3 SAE and Ashrae Guidelines for Vibration Isolation

### 2. Application:

Spring Hangers are used for isolation of vibration produced by suspended mechanical equipment, low speed suspended fan, transformers, duct work, piping etc... These are especially recommended for isolating any suspended source of audible / inaudible noise and vibration with minimum static deflection requirement exceeding 25 mm and upto 50 mm.

### 3. Product Features:

- 3.1 The Springs are designed to have a stiffness ratio more than unity which ensures buckle free operation throughout load range.
- 3.2 Suspension rod misalignment (30 degree arc) is compensated in hanger design.
- 3.3 Locking rubber bush centralizes the spring and prevents dislocation.
- 3.4 Springs are powder coated with appropriate color coding to facilitate identification.
- 3.5 Frame is made of G.I. steel and powder coated to 100 microns paint thickness (exceeds 1000 hours of salt spray test) and conforming to ASTM B-117.

#### Option :

Frame Hot Dip Galvanized. Part Number prefix with "HDG".

Spring Neoprene Coated. Part Number prefix with "N".

Spring Plastic Dip Coated. Part Number prefix with "P".

- 3.6 Isolation Brackets are capable of overloading upto 500%.
- 3.7 The Springs are designed to have additional 50% of rated load at 1.5 of rated deflection.

### 4. Selection / Ordering:

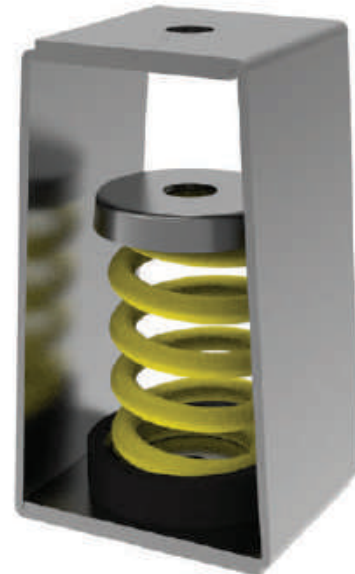
Point load (Calculated to include all variables such as weight of water in pipe lines etc if applicable).

### 5. Installation Guide lines:

Included in packaging.

### 6. Options:

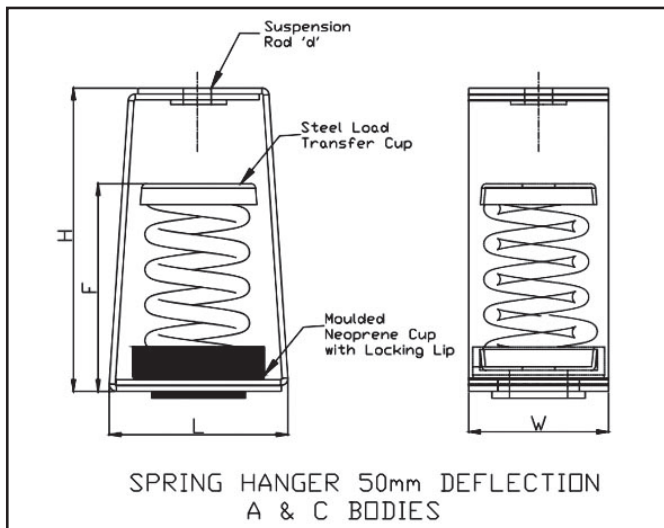
Spring Hangers of Higher Capacity and Deflection shall be Engineered as per Specific Requirements. Nomenclature for Special Engineered Spring Hangers shall be SSH(XXX - Deflection-G(XXXXX-Load)).



**SPRING HANGER  
50mm DEFLECTION  
A & C BODIES**

## SELECTION TABLE FOR 50 MM DEFLECTION SPRING HANGERS (Table No: C-11-180620)

Isolator Model	Rated Load (kg)	Spring Colours	Dimensions (mm)				
			L	W	F	H	d
SSH50-A10	10	Brown	90	80	120	170	M12
SSH50-A15	15	Orange					
SSH50-A30	30	Green					
SSH50-A40	40	Red					
SSH50-A60	60	White					
SSH50-A100	100	Blue					
SSH50-A150	150	Black					
SSH50-A200	200	Yellow					
SSH50-A250	250	Purple					
SSH50-A300	300	Grey					
SSH50-C400	400	Green	120	100	160	220	M20
SSH50-C500	500	Yellow					
SSH50-2C600	600	Grey	220	100	160	240	M30
SSH50-2C800	800	Green					
SSH50-2C1000	1000	Yellow					
SSH50-2C1200	1200	Yellow*					
SSH50-2C1400	1400	Yellow**					
SSH50-2C1600	1600	Yellow***					
SSH50-4C2000	2000	Yellow	220	200	160	240	M36
SSH50-4C2400	2400	Yellow**					
SSH50-4C2800	2800	Yellow**					
SSH50-4C3200	3200	Yellow***					



- \* With WHITE Core Spring
- \*\* With BLUE Core Spring
- \*\*\* With BLACK Core Spring

- Spring Hangers with higher capacity available on application.

**Note:**

- Due to policy of continuous improvement, the specifications are subject to change without prior notice.
- Measurements are subject to 5% tolerance.
- To achieve good sound suppression, do not overload fitting.



## Precompressed Spring Hanger 25 mm Standard Deflection

Catalogue Number : 9000105 : Rev. 05 Dated 23-06-2021

### 1. Compliance:

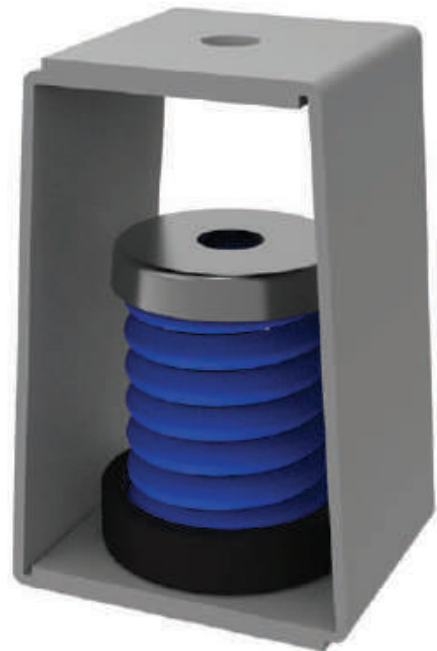
- 1.1 Designed to BS 1726 -1 : 1987
- 1.2 Tolerance to BS 1726-1 : 2002
- 1.3 SAE and Ashrae Guidelines for Vibration Isolation

### 2. Application:

Suspension of water pipe lines and seismically restrained rotating equipments.

### 3. Product Features:

- 3.1 The Springs are designed to have a stiffness ratio more than unity which ensures buckle free operation throughout load range.
  - 3.2 Suspension rod misalignment (30 degree arc) is compensated in hanger design.
  - 3.3 Direct connection to lower suspension rod by means of a threaded rod coupler.
  - 3.4 Printed deflection scale to indicate total spring deflection.
  - 3.5 Pre compressed spring effectively minimizes transfer of variations in pipe load during filling of pipes thus protecting equipment connections / flexible joints and also prevents overloading of the main equipment isolators.
  - 3.6 Locking rubber bush centralizes the spring and prevents dislocation.
  - 3.7 Springs are powder coated with appropriate color coding to facilitate identification.
  - 3.8 Frame is made of G.I. steel and powder coated to 100 microns paint thickness (exceeds 1000 hours of salt spray test) and conforming to ASTM B-117.
  - 3.9 The Springs are designed to have additional 50% of rated load at 1.5 of rated deflection.
- Option:
- 1) Frame Hot Dip Galvanised (Prefix Part Number with "HDG")
  - 2) Spring Neoprene Coated (Prefix Part Number with "N")
  - 3) Spring Plastic Coated (Prefix Part Number with "P")



Pre-Compressed Spring Hanger  
25 mm Standard Deflection

### 4. Selection / Ordering:

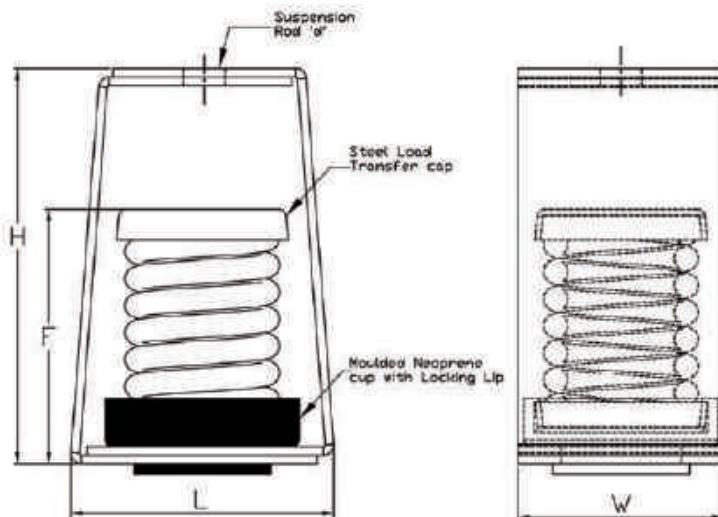
Point load (Calculated to include all variables such as weight of water in pipe lines etc if applicable).

### 5. Installation Guide lines:

Included in packaging.

## SELECTION TABLE - 25 MM DEFLECTION PRECOMPRESSED SPRING HANGERS (Table No: 100820-01)

Isolator Model	Rated Load (kg)	Spring Colours	Dimension (mm)				
			L	W	F	H	d
SPCSH25-A25	25	Green	75	60	88	110	M12
SPCSH25-A50	50	Black					
SPCSH25-A75	75	White					
SPCSH25-A100	100	Blue					
SPCSH25-A150	150	Grey					
SPCSH25-A200	200	Orange					
SPCSH25-B200	200	Green	90	80	105	150	M16
SPCSH25-B250	250	Brown					
SPCSH25-B300	300	Grey					
SPCSH25-B400	400	Purple					
SPCSH25-C400	400	Brown	90	80	105	150	M20
SPCSH25-C500	500	Grey					
SPCSH25-C600	600	Orange					
SPCSH25-C700	700	Green					
SPCSH25-2C800	800	Brown					
SPCSH25-2C1000	1000	Grey					
SPCSH25-2C1200	1200	Orange	200	100	105	160	M30
SPCSH25-2C1400	1400	Green					
SPCSH25-2C1600	1600	Brown*					
SPCSH25-2C1800	1800	Grey*					
SPCSH25-2C2000	2000	Orange*					
SPCSH25-2C2200	2200	Green*					
SPCSH25-2C2400	2400	Orange**	200	100	105	160	M36
SPCSH25-2C2600	2600	Green**					



Pre-Compressed Spring Hanger  
25 mm Standard Deflection  
A, B & C Bodies

\* With WHITE Core Spring

\*\* With BLUE Core Spring

**Note:**

- Due to policy of continuous improvement, the specifications are subject to change without prior notice.
- Measurements are subject to 5% tolerance.
- To achieve good sound suppression, do not overload fitting.



## Precompressed Spring Hanger 50 mm Standard Deflection

**Catalogue Number : 9000106 : Rev. 04 Dated 23-06-2021**

**1. Compliance:**

- 1.1 Designed to BS 1726 -1 : 1987
- 1.2 Tolerance to BS 1726-1 : 2002
- 1.3 SAE and Ashrae Guidelines for Vibration Isolation

**2. Application:**

Suspension of water pipe lines and seismically restrained rotating equipments.

**3. Product Features:**

- 3.1 The Springs are designed to have a stiffness ratio more than unity which ensures buckle free operation throughout load range.
- 3.2 Suspension rod misalignment (30 degree arc) is compensated in hanger design.
- 3.3 Direct connection to lower suspension rod by means of a threaded rod coupler.
- 3.4 Printed deflection scale to indicate total spring deflection.
- 3.5 Pre compressed spring effectively minimizes transfer of variations in pipe load during filling of pipes thus protecting equipment connections / flexible joints and also prevents overloading of the main equipment isolators.
- 3.6 Locking rubber bush centralizes the spring and prevents dislocation.
- 3.7 Springs are powder coated with appropriate color coding to facilitate identification.
- 3.8 Frame is made of G.I. steel and powder coated to 100 microns paint thickness (exceeds 1000 hours of salt spray test) and conforming to ASTM B-117.
- 3.9 The Springs are designed to have additional 50% of rated load at 1.5 of rated deflection.

**Options:**

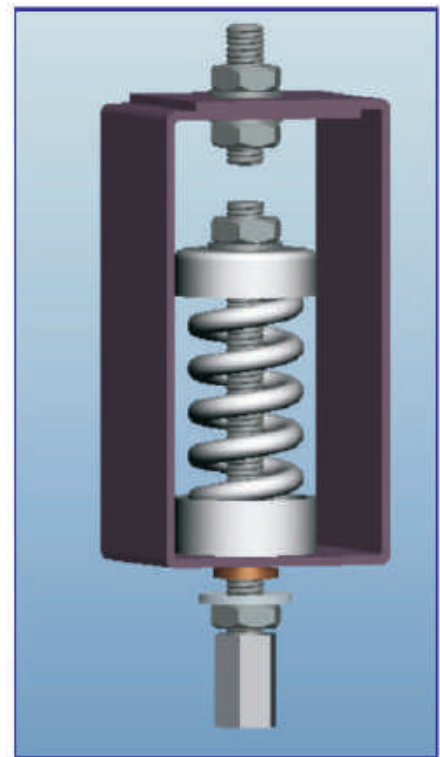
- 1) Frame Hot Dip Galvanised (Prefix Part Number with "HDG")
- 2) Spring Neoprene Coated (Prefix Part Number with "N")
- 3) Spring Plastic Coated (Prefix Part Number with "P")

**4. Selection / Ordering:**

Point load (Calculated to include all variables such as weight of water in pipe lines etc if applicable).

**5. Installation Guide lines:**

Included in packaging.

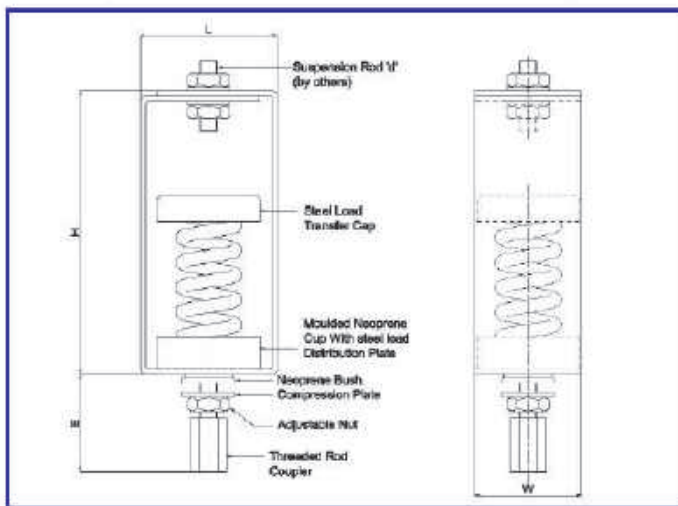


## SELECTION TABLE FOR 50 MM DEFLECTION PRECOMPRESSED SPRING HANGERS (Table No: 100820-01)

Isolator Model	Rated Load (kg)	Spring Colours	Dimension (mm)				
			L	W	F	H	d
SPCSH50-A10	10	Brown	90	80	150	120	M12
SPCSH50-A15	15	Orange					
SPCSH50-A30	30	Green					
SPCSH50-A40	40	Red					
SPCSH50-A60	60	White					
SPCSH50-A100	100	Blue					
SPCSH50-A150	150	Black					
SPCSH50-A200	200	Yellow					
SPCSH50-A250	250	Purple					
SPCSH50-A300	300	Grey					
SPCSH50-C250	250	Orange	120	100	200	160	M20
SPCSH50-C300	300	Brown					
SPCSH50-C400	400	Green					
SPCSH50-C500	500	Yellow					
SPCSH50-2C600	600	Brown	220	100	210	160	M36
SPCSH50-2C800	800	Green					
SPCSH50-2C1000	1000	Yellow					
SPCSH50-2C1200	1200	Yellow*					
SPCSH50-2C1400	1400	Yellow**					
SPCSH50-2C1600	1600	Yellow***					
SPCSH50-4C2000	2000	Yellow	240	200	210	160	M36
SPCSH50-4C2400	2400	Yellow*					
SPCSH50-4C2800	2800	Yellow**					
SPCSH50-4C3200	3200	Yellow***					

### Precompressed Spring Hanger 50 mm Standard Deflection

- \* With WHITE Core Spring
- \*\* With BLUE Core Spring
- \*\*\* With BLACK Core Spring



**Note:**

- Due to policy of continual improvement, the specifications are subject to change without prior notice.
- Measurements are subject to 5% tolerance.
- To achieve good sound suppression, do not overload fitting.



## Combination Spring Hangers - Light Duty

Catalogue Number : 9000107 : Rev. 05 Dated 13-07-2021

### 1. Compliance:

- 1.1 Designed to BS 1726 -1 : 1987
- 1.2 Tolerance to BS 1726-1 : 2002
- 1.3 SAE and Ashrae Guidelines for Vibration Isolation

### 2. Application:

Generally for light duty applications like small fans, humidifiers, variable air volume boxes, small fan coil units, small size piping and air ducting in mechanical rooms.

### 3. Product Features:

- 3.1 Double protection against transmission of noise to structures is assured as the neoprene component provides an effective acoustic barrier and the moulded neoprene cup below the spring prevents metal to spring contact, thus effectively isolating the suspended equipment from the structure.
- 3.2 The Springs are designed to have a stiffness ratio more than unity which ensures buckle free operation throughout load range.
- 3.3 Suspension rod misalignment (30 degree arc) is compensated in hanger design.
- 3.4 Locking rubber bush centralizes the spring and prevents dislocation.
- 3.5 Springs are powder coated with appropriate color coding to facilitate identification.
- 3.6 Frame is made of G.I. steel and powder coated to 100 microns paint thickness (exceeds 1000 hours of salt spray test) and conforming to ASTM B-117.

Options:

- 1) Frame Hot Dip Galvanised (Prefix Part Number with "HDG")
- 2) Spring Neoprene Coated (Prefix Part Number with "N")
- 3) Spring Plastic Coated (Prefix Part Number with "P")

- 3.7 The Springs are designed to have additional 50% of rated load at 1.5 of rated deflection.

### 4. Selection / Ordering:

Point load (Calculated to include all variables such as weight of water in pipe lines etc if applicable).

### 5. Installation Guide lines:

Included in packaging.

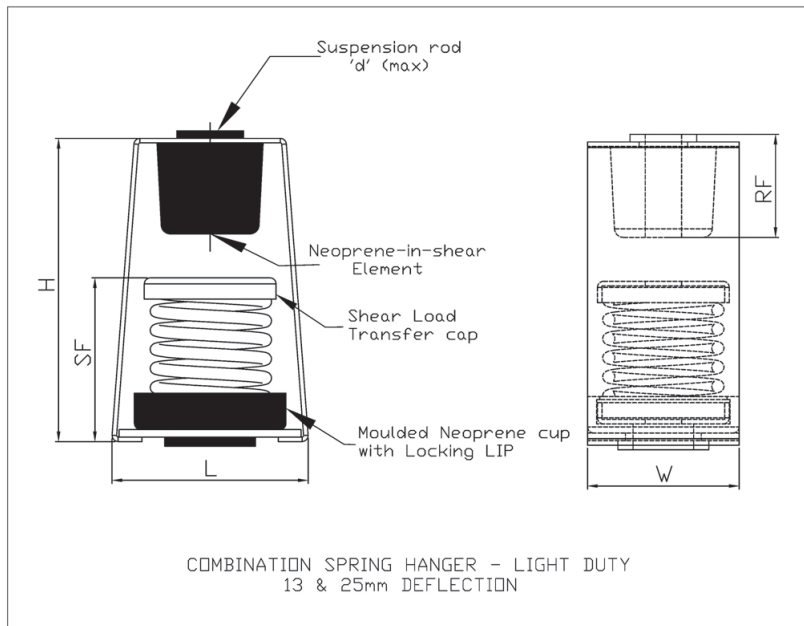


COMBINATION SPRING HANGER  
LIGHT DUTY  
13mm & 25mm DEFLECTION

## SELECTION TABLE FOR COMBINATION SPRING HANGERS - LIGHT DUTY (Table No: C-17-130721)

Isolator Model	Rated Deflection	Rated Load (kg)	Spring Colour	Dimensions (mm)					
				L	W	SF*	RF	H	d (max)
SCSHL-M6	13 mm	6	Orange	65	50	54	30	120	M10
SCSHL-M9		9	Grey						
SCSHL-M15		15	Blue						
SCSHL-M21		21	Green						
SCSHL-M28		28	White						
SCSHL-P6	25 mm	6	Green	65	50	70	30	140	M10
SCSHL-P9		9	Red						
SCSHL-P15		15	Black						
SCSHL-P21		21	Yellow						
SCSHL-P28		28	Blue						
SCSHL-P35		35	Grey						
SCSHL-P50		50	Orange						

\* Represents average free height in each grouping of models. Height of some models in group may vary slightly from this figure.



**Note:**

- Due to policy of continuous improvement, the specifications are subject to change without prior notice.
- Measurements are subject to 5% tolerance.
- To achieve good sound suppression, do not overload fitting.



## Combination Spring Hanger 25 mm & 50 mm Standard Deflection Catalogue Number : 9000108 : Rev. 05 Dated 23-06-2021

### 1. Compliance:

- 1.1 Designed to BS 1726 -1 : 1987
- 1.2 Tolerance to BS 1726-1 : 2002
- 1.3 SAE and Ashrae Guidelines for Vibration Isolation

### 2. Application:

- 2.1 Generally used for suspension of heavy rotating equipment, for example Air Handling Units, Fan Coil Units, Ventilation Fans, Large Variable Air Volume Boxes, Pipes and air ducts in Mechanical Rooms.
- 2.2 These are highly effective when vibrations of high frequency and large amplitude are present.

### 3. Product Features:

- 3.1 Double protection against transmission of noise to structures is assured as the neoprene component provides an effective acoustic barrier and the moulded neoprene cup below the spring prevents metal to spring contact, thus effectively isolating the suspended equipment from the structure.
- 3.2 The Springs are designed to have a stiffness ratio more than unity which ensures buckle free operation throughout load range.
- 3.3 Suspension rod misalignment (30 degree arc) is compensated in hanger design.
- 3.4 Locking rubber bush centralizes the spring and prevents dislocation.
- 3.5 Springs are powder coated with appropriate color coding to facilitate identification.
- 3.6 Frame is made of G.I. steel and powder coated to 100 microns paint thickness (exceeds 1000 hours of salt spray test) and conforming to ASTM B-117.  
Options:
  - 1) Frame Hot Dip Galvanised (Prefix Part Number with "HDG")
  - 2) Spring Neoprene Coated (Prefix Part Number with "N")
  - 3) Spring Plastic Coated (Prefix Part Number with "P")
- 3.7 The Springs are designed to have additional 50% of rated load at 1.5 of rated deflection.

### 4. Selection / Ordering:

Point load (Calculated to include all variables such as weight of water in pipe lines etc if applicable).

### 5. Installation Guide lines:

Included in packaging.

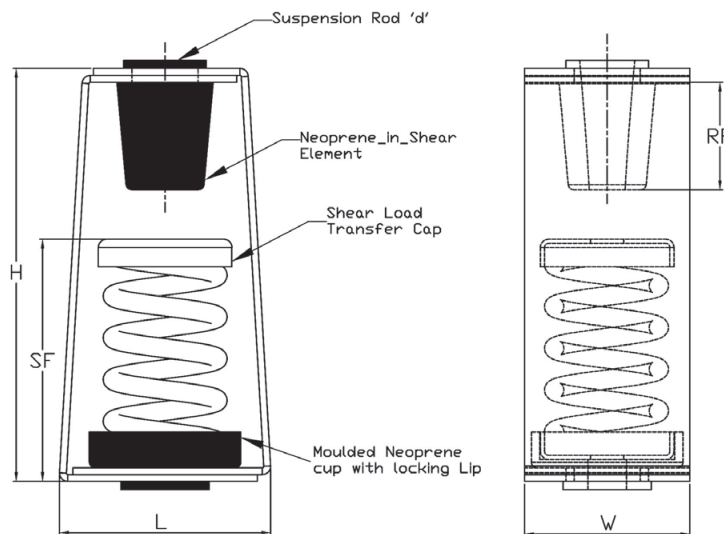


**Combination Spring Hanger  
25mm & 50mm Standard  
Deflection  
A, B & C Bodies**

**SELECTION TABLE FOR 25 MM DEFLECTION COMBINATION SPRING HANGERS (Table No: C19-150720)**

Isolator Model	Rated Load (kg)	Spring Colours	Dimensions (mm)					
			L	W	SF*	RF	H	d
SCSH-A25	25	Green	75	60	78	39	170	M12
SCSH-A50	50	Black						
SCSH-A75	75	White						
SCSH-A100	100	Blue						
SCSH-A150	150	Grey						
SCSH-A200	200	Orange	90	80	100	46	200	M16
SCSH-B200	200	Green						
SCSH-B250	250	Brown						
SCSH-B300	300	Grey						
SCSH-B400	400	Purple	90	80	105	73	240	M20
SCSH-C400	400	Brown						
SCSH-C500	500	Grey						
SCSH-C600	600	Orange						
SCSH-C700	700	Green	120	120	105	73	240	M30
SCSH-2C800	800	Brown						
SCSH-2C1000	1000	Grey						
SCSH-2C1200	1200	Orange						
SCSH-2C1400	1400	Green						

\* Represents average free height in each grouping of models. Height of some models in group may vary slightly from this figure.



Combination Spring Hanger  
25mm & 50mm  
Standard Deflection  
A, B & C Bodies

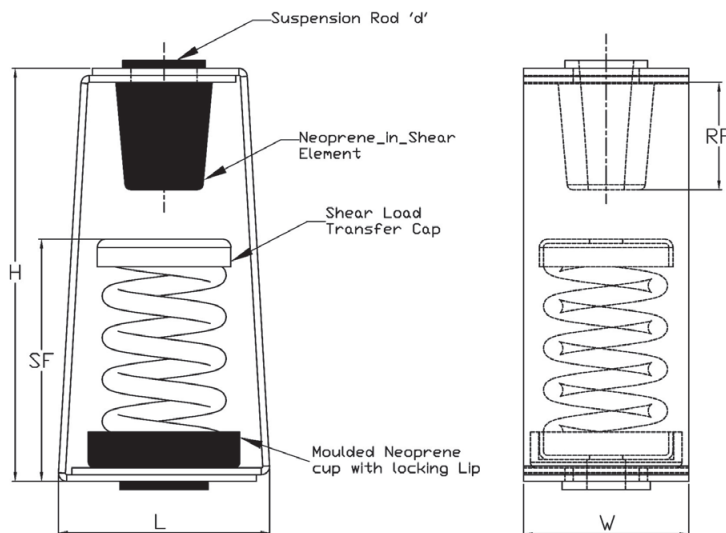
**Note:**

- Due to policy of continuous improvement, the specifications are subject to change without prior notice.
- Measurements are subject to 5% tolerance.
- To achieve good sound suppression, do not overload fitting.



## SELECTION TABLE FOR 50 MM DEFLECTION COMBINATION SPRING HANGERS (Table No: C-20-01)

Isolator Model	Rated Load (kg)	Spring Colours	Dimension (mm)				
			L	W	H	E(apprx.)	d
SCSH50-A10	10	Brown	100	90	215	115	M16
SCSH50-A15	15	Orange					
SCSH50-A30	30	Green					
SCSH50-A40	40	Red					
SCSH50-A60	60	White					
SCSH50-A100	100	Blue					
SCSH50-A150	150	Black					
SCSH50-A200	200	Yellow					
SCSH50-A250	250	Purple					
SCSH50-A300	300	Grey					
SCSH50-C200	200	Red					
SCSH50-C250	250	Orange					
SCSH50-C300	300	Brown					
SCSH50-C400	400	Green					
SCSH50-C500	500	Yellow					
SCSH50-2C800	800	Green	240	100	250	130	M30
SCSH50-2C1000	1000	Yellow					
SCSH50-2C1200	1200	Yellow*					
SCSH50-2C1400	1400	Yellow**					
SCSH50-2C1600	1600	Yellow***					



Combination Spring Hanger  
25mm & 50mm  
Standard Deflection  
A,B & C Bodies

- \* With WHITE Core Sprint
- \*\* With BLUE Core Spring
- \*\*\* With BLACK Core Spring

**Note:**

- Due to policy of continuous improvement, the specifications are subject to change without prior notice.
- Measurements are subject to 5% tolerance.
- To achieve good sound suppression, do not overload fitting.



## Neoprene Hanger

Catalogue Number : 9000109 : Rev. 03 Dated 01-06-2015

### 1. Compliance:

- 1.1 Designed to BS 1726 -1 : 1987
- 1.2 Tolerance to BS 1726-1 : 2002
- 1.3 SAE and Ashrae Guidelines for Vibration Isolation

### 2. Application:

Neoprene Hangers are recommended for the isolation of vibration produced by suspended Mechanical Equipment less than 15 kw, such as exhaust fans, duct work, Fan Coil Units, Piping etc... These are especially recommended to isolate sources of audible frequency of vibration where static deflection requirement is upto 13 mm.

### 3. Product Features:

- 3.1 Frame is made of G.I. steel and powder coated to 100 microns paint thickness (exceeds 1000 hours of salt spray test) and conforming to ASTM B-117.  
Option : Frame Hot Dip Galvanised. Part Number prefix with "HDG".
- 3.2 Neoprene Rubber Mount is designed with hollow conical section thus ensuring loading of rubber in shear as well as compression mode and hence provides better isolation performance.
- 3.3 Hanger Cage is designed to accommodate suspension rod misalignment upto 30°
- 3.4 Colour coded to facilitate easy identification
- 3.5 Steel Brackets are fail safe upto 500% overloading
- 3.6 As Neoprene Rubber is inherently resistant against oil, grease etc, this is suitable for installation in the corrosive environment.
- 3.7 Steel plates impregnated inside the mounts will ensure uniform distribution of applied load.

### 4. Selection / Ordering:

Point load (Calculated to include all variables such as weight of water in pipe lines etc if applicable).

### 5. Installation Guide lines:

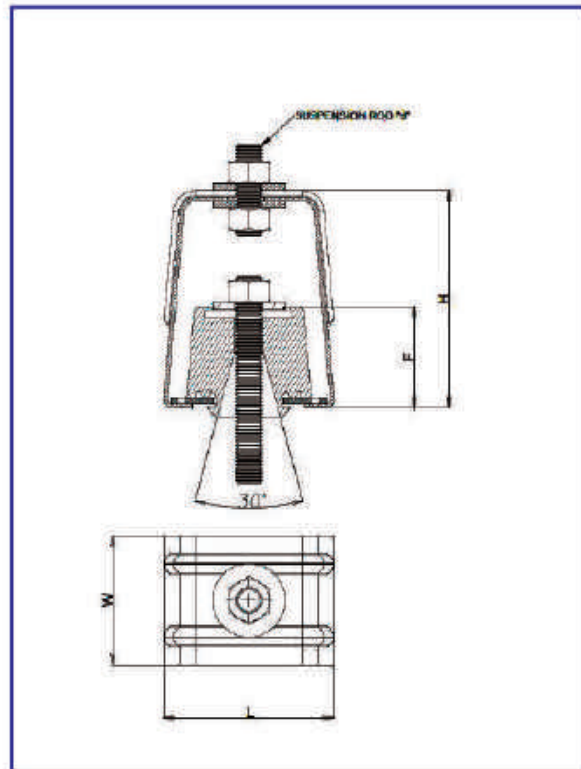
Included in packaging.



**SELECTION TABLE (Table No: C-22-01)**

Model	Colour Code	Rated Load (kg)	Rated Deflection(mm)	Dimensions (mm)				
				L	W	H	F	d
SNH-A-R	Red	18	8	65	50	80	35	M12
SNH-A-G	Green	35						
SNH-A-B	Blue	50						
SNH-B-R	Red	100	10	77	60	100	48	M12
SNH-B-G	Green	140						
SNH-B-B	Blue	200						
SNH-C-R	Red	250	10	94	80	145	73	M16
SNH-C-G	Green	350						
SNH-C-B	Blue	500						
SNH-D-R	Red	600	13	107	95	180	90	M20
SNH-D-G	Green	700						
SNH-D-B	Blue	900						

## Neoprene Hanger



**Note:**

- Due to policy of continuous improvement, the specifications are subject to change without prior notice.
- Measurements are subject to 5% tolerance.
- To achieve good sound suppression, do not overload fitting.



## Open Spring Mounts - Rubber Based 25 & 50 mm Deflection

Catalogue Number : 9000110 : Rev. 06 Dated 23-06-2021

### 1. Compliance:

- 1.1 Designed to BS 1726 -1 : 1987
- 1.2 Tolerance to BS 1726-1 : 2002
- 1.3 SAE and ASHRAE Guidelines for Vibration Isolation

### 2. Application:

These are widely used for making Inertia Base Frames along with snubbers

### 3. Product Features:

- 3.1 Spring elements are designed to operate without spring buckling with horizontal stiffness equal to vertical stiffness
- 3.2 These springs are provided with 50% overload capacity at 1.5 times of rated deflection.
- 3.3 Bottom plates are made of thick ribbed Neoprene Pad for isolating noise and vibration.
- 3.4 Standard product range up to 2" deflection and custom isolators with higher deflections are available.
- 3.5 Upper load plate and leveling assembly are provided for accurate leveling.
- 3.6 The springs are powder coated with appropriate colour coding to facilitate identification.
- 3.7 Springs are powder coated to 100 microns paint thickness (exceeds 1,000 hours of salt spray test) conforming to ASTM B-117
- 3.8 As Neoprene Rubber is inherently resistant against oil, grease, UV etc, this is suitable corrosive outdoor applications.



### Options:

1. Frame Hot Dip Galvanised (Prefix "HDG")
2. Spring Neoprene coated (Prefix "N")
3. Spring Plastic coated (Prefix "P")
4. Stainless Steel Bolt (Prefix "SS")

### 4. Selection / Ordering:

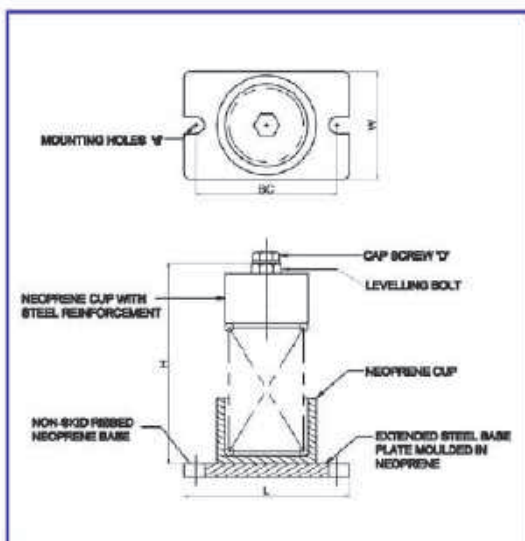
Point Load (calculated to include variables such as weight of water in pipe lines etc. if applicable)

### 5. Installation Guide lines:

Included in packing.

**Selection Table for Open Spring Mounts - Rubber Based - 25 mm Deflection  
(Table Number : SOSMRB25300620)**

Model No.	Rated Load (kg)	Spring Colour	Dimensions (mm)					
			L	W	H	BC	D	d
SOSMRB25-A25	25	Green	96	57	105	78	M12	12
SOSMRB25-A50	50	Black						
SOSMRB25-A100	100	Blue						
SOSMRB25-A150	150	Grey						
SOSMRB25-A200	200	Orange						
SOSMRB25-A250	250	Grey#						
SOSMRB25-A300	300	Orange#						
SOSMRB25-B200	200	Green						
SOSMRB25-B250	250	Brown	138	77	142	107	M12	12
SOSMRB25-B300	300	Grey						
SOSMRB25-B400	400	Purple						
SOSMRB25-B500	500	Black						
SOSMRB25-B600	600	Yellow						
SOSMRB25-B700	700	Yellow ***						
SOSMRB25-C400	400	Brown						
SOSMRB25-C500	500	Grey	155	87	142	121	M12	12
SOSMRB25-C600	600	Orange						
SOSMRB25-C700	700	Green						
SOSMRB25-C800	800	Brown *						
SOSMRB25-C900	900	Grey *						
SOSMRB25-C1000	1000	Orange *						
SOSMRB25-C1100	1100	Green *						
SOSMRB25-C1200	1200	Orange **						
SOSMRB25-C1300	1300	Green **						

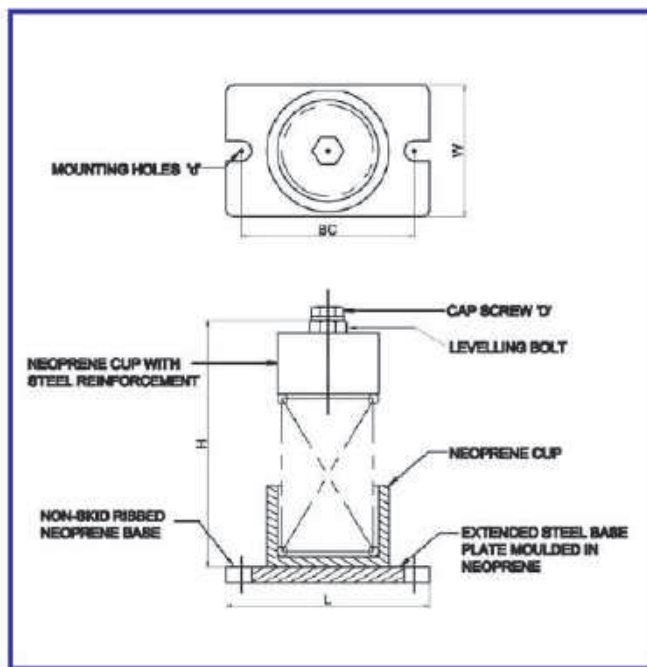


- # with RED Core Spring
- \* with WHITE Core Spring
- \*\* with BLUE Core Spring
- \*\*\* with BLACK Core Spring



**Selection Table for Open Spring Mounts - Rubber Based - 50 mm Deflection**  
**(Table Number : SOSMRB50230621)**

Model No.	Rated Load (kg)	Spring Colour	Dimensions (mm)					
			L	W	H	BC	D	d
SOSMRB50-A10	10	Brown	120	108	150	102	12	M10
SOSMRB50-A15	15	Orange						
SOSMRB50-A30	30	Green						
SOSMRB50-A40	40	Red						
SOSMRB50-A60	60	White						
SOSMRB50-A100	100	Blue						
SOSMRB50-A150	150	Black						
SOSMRB50-A200	200	Yellow						
SOSMRB50-A250	250	Purple						
SOSMRB50-A300	300	Grey						
SOSMRB50-C200	200	Red	170	140	200	140	20	M16
SOSMRB50-C250	250	Orange						
SOSMRB50-C300	300	Brown						
SOSMRB50-C400	400	Green						
SOSMRB50-C500	500	Yellow						
SOSMRB50-C600	600	Yellow*						
SOSMRB50-C700	700	Yellow**						
SOSMRB50-C800	800	Yellow***						



\*with WHITE Core Spring  
 \*\*with BLUE Core Spring  
 \*\*\*with BLACK Core Spring

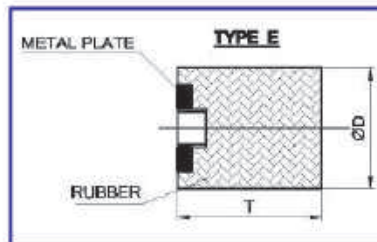
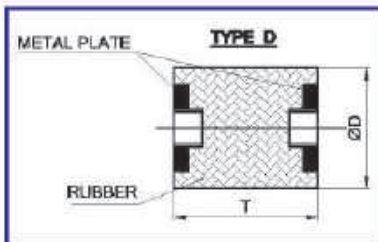
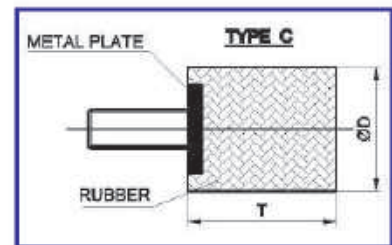
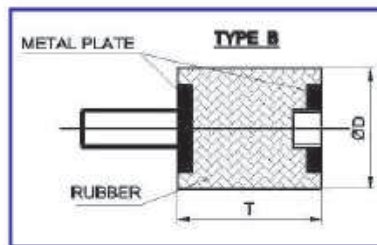
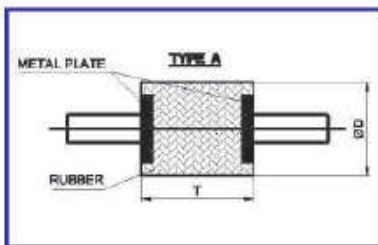
**Note:**

- Due to policy of continuous improvement, the specifications are subject to change without prior notice.
- Measurements are subject to 5% tolerance.
- To achieve good sound suppression, do not overload fitting.



## Round mounts

Catalogue Number : 9000111 : Rev. 02 Dated 22-11-2014



### 1. Compliance:

British Standards, BS 3974 : Part I

### 2. Application:

Suitable for high frequency vibration / noise generated from Fan Coil Units, Axial Fans, Pumps, Blowers etc...

### 3. Product Features:

- 3.1 High strength bond and specially compounded elastomers assure a long life and high load carrying capacity.
- 3.2 Low cost, light weight, compact, easy to install and maintenance free.

### 4. Selection / Ordering:

Static Load



**SELECTION TABLE - ROUND MOUNTS (Table No: C-26-01)**

Size	Type	Max Static Load (kg)	Deflection (mm)	DØ (mm)	T (mm)	Thread Size & Stud Length or Thread Depth	
						Bolt	Nut
SRM-13	A	4.5	1.0	13	13	3/16"BSWx13L	3/6"BSWx4 Deep
SRM-19	A	4.5	1.0	13	13	3/16"BSWx13L	3/6"BSWx4 Deep
SRM-16	A	4.5	1.0	13	13	3/16"BSWx13L	3/6"BSWx4 Deep
SRM-19	A	18	3.0	19	19	¼"BSWx19L	¼"BSWx6 Deep
	B	25	3.0	19	19		
SRM-20	A	6.0	3.0	20	25		
	B	6.0	3.0	20	25		
	A	16	1.5	25	19	5/16"BSWx22L	5/18"BSWx6 Deep
	B	22	1.5	25	19		
SRM-25	A	30	3.5	25	20	M6x1Px13L	M6x1Px6 Deep
	B	45	3.5	25	20		
SRM-25	A	50	3.5	25	22	M6x1Px13L	M6x1Px6 Deep
SRM-25	A	37	3.5	25	30	M8x1.25Px20L	M8x1.25Px6 Deep
	B	52	3.5	25	30		
SRM-30	A	64	3.5	30	22	M8x1.25Px25L	M8x1.25Px6 Deep
SRM-30	A	22	3.0	30	30	M8x1.25Px21L	M8x1.25Px6 Deep
SRM-35	A	64	3.0	35	22	3/8"BSWx38L	3/8"BSWx6 Deep
	B	21	1.5	35	25		
SRM-38	A	70	4.0	38	25	M8x1.25Px17L	M8x1.25Px6 Deep
	B	110	4.0	38	25		
SRM-38	A	50	6.0	38	38	M8x1.25Px17L	M8x1.25Px10 Deep
	B	67	6.0	38	38		
SRM-40	B	146	4.5	40	28	M10x1.25Px25L	M10x1.5Px6 Deep
SRM-40	B	60	5.0	40	30	M8x1.25Px25L	M8x1.25Px6 Deep
SRM-40	A	43	6.0	40	40	M10x1.5Px38L	M10x1.5Px10 Deep
	B	59	6.0	40	40		
SRM-50	A	651	5.0	50	40	M10x1.5Px22L	M10x1.5Px12 Deep
	B	110	5.0	50	40		
SRM-50	B	106	7.0	50	45	M10x1.5Px22L	M10x1.5Px12 Deep
SRM-50	A	76	7.0	50	50	M10x1.5Px22L	M10x1.5Px12 Deep

➤ Type C,D,E available as per customer requirement

**Note:**

- Due to policy of continuous improvement, the specifications are subject to change without prior notice.
- Measurements are subject to 5% tolerance.
- To achieve good sound suppression, do not overload fitting.



## Neoprene Floor Mount

Catalogue Number : 9000112 : Rev. 03 Dated 01-06-2015

### 1. Compliance:

- 1.1 Designed to BS 1726 -1 : 1987
- 1.2 Tolerance to BS 1726-1 : 2002
- 1.3 SAE and Ashrae Guidelines for Vibration Isolation

### 2. Application:

Neoprene Floor Mounts are used to isolate Noise and Vibration from high frequency Mechanical Equipments, typically 1,500 rpm or more. Generally these are used for vibration and noise isolation of wall mounted Condensing Units, Close Coupled Pumps with 5 HP or less Motor Rating, Low Pressure Pack etc..

### 3. Product Features:

- 3.1 Metal Plate impregnated mounting holes are provided for sturdy anchoring
- 3.2 Serrated Neoprene bottom plates prevent skidding
- 3.3 As Neoprene offers excellent resistance towards oil, dirt grease, UV light etc, it more durable in the corrosive outdoors for long life
- 3.4 Colour codes are provided for easy identification

### 4. Selection / Ordering:

Point load (Calculated to include all variables such as weight of water in / out pipe lines etc if applicable).

### 5. Installation Guide lines:

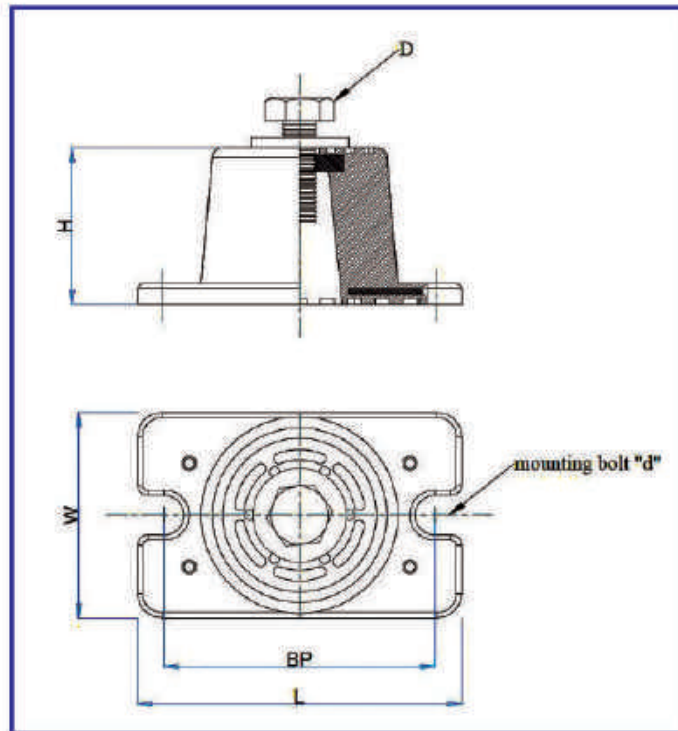
Included in packaging.



## SELECTION TABLE - NEOPRENE FLOOR MOUNT (Table No: C-28-01)

Model	Colour Code	Rated Load (Kg)	Rated Deflection(mm)	Dimensions (mm)					
				L	W	H	BP	D	d
SFM-A-R	Red	18	8	80	46	40	60	M8	M8
SFM-A-G	Green	35							
SFM-A-B	Blue	50							
SFM-B-R	Red	100	10	94	60	46	78	M10	M10
SFM-B-G	Green	140							
SFM-B-B	Blue	200							
SFM-C-R	Red	250	10	135	82	70	115	M12	M12
SFM-C-G	Green	350							
SFM-C-B	Blue	500							
SFM-D-R	Red	600	13	145	92	85	120	M20	M16
SFM-D-G	Green	700							
SFM-D-B	Blue	900							
SFM-E-R	Red	1200	13	175	130	90	150	M30	M20
SFM-E-G	Green	1800							

### Neoprene Floor Mount



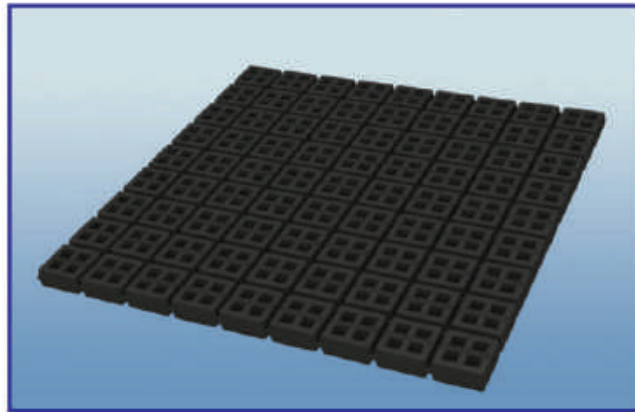
**Note:**

- Due to policy of continuous improvement, the specifications are subject to change without prior notice.
- Measurements are subject to 5% tolerance.
- To achieve good sound suppression, do not overload fitting.



## Modular Rubber Pads

Catalogue Number : 9000113 : Rev. 02 Dated 22-11-2014



### 1. Compliance:

British Standards, BS 3974 : Part I

### 2. Application:

The Pads are suitable for the isolation of noise, shock and high frequency vibration produced by Mechanical, Industrial or Process Equipments on the floor. Generally used for Wall Mounted Condensing Units, Air Handling Units, Centrifugal Pumps etc... Pads are arranged linearly when required to isolate heavier loads.

### 3. Product Features:

- 3.1 Superior to metal springs in terms of greater sound insulation ability.
- 3.2 Low cost, easy to install.
- 3.3 Pads are designed for a maximum deflection of approximately 20% of its unloaded thickness.
- 3.4 Load can be distributed over large surface area which reduces efforts in Leveling.
- 3.5 Pads permit loading from 3.5 kg/cm<sup>2</sup> - 17.5 kg/cm<sup>2</sup> with maximum rated deflection of 8 mm
- 3.6 Pad consists of 81 Modules of Size : 50 mm x 50 mm with 20 mm thick moulded in compounded Natural Rubber. The unique Square Cell Design allows maximum deflection without Rib Collapse and Sealing against external contaminants.

### 4. Technical Specifications:

- 4.1 Model : SMRP
- 4.2 Standard Size : 450 mm x 450 mm x 20 mm
- 4.3 Material : Compounded Natural Rubber. Other Elastomers such as EPDM, Neoprene, SBR etc.. available on request.
- 4.4 Loading : Recommended upto 75 kg per module
- 4.5 Deflection : Approximately 3 mm at Rated Load

## Duct Mount

Catalogue Number : 9000114 : Rev. 02 Dated 11-10-2014

### 1. Compliance:

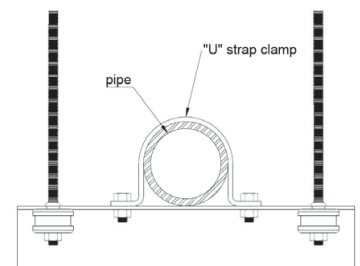
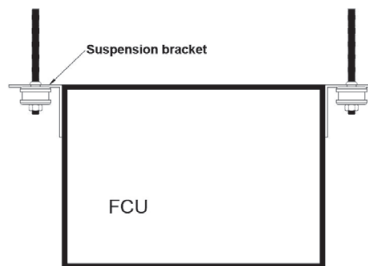
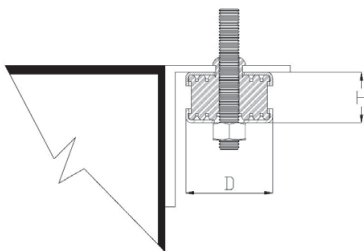
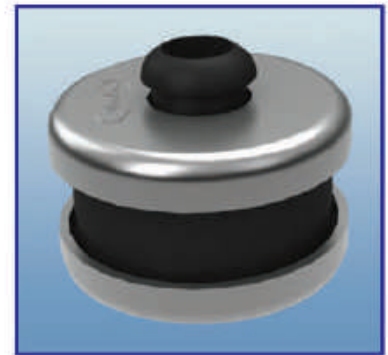
British Standards, BS 3974 : Part I

### 2. Application:

To control transmission of noise to the building structure, Starline Duct Mounts serve as acoustic separators between sources of high frequency vibration and their suspension rods. Some example applications are illustrated below.

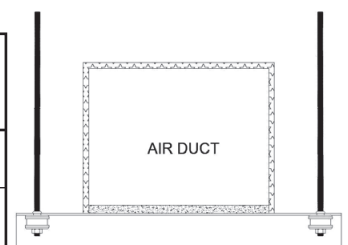
### 3. Product Features:

- 3.1 Resilient rubber grommet with steel load distribution cups and extended sleeve, designed to reduce transmission of structure born noise from air ducts and suspended equipments / small pipes.
- 3.2 Supplied complete with top and bottom steel load distribution cups, electrogalvanised after manufacture for maximum corrosion resistance.
- 3.3 Extended sleeve of rubber element prevents metal to metal contact between suspension rod and suspension bracket / trapeze channel.
- 3.4 Available in two different sizes to suit width of duct / equipment suspension channel.
- 3.5 Colour coded for identification of Capacity.



**SELECTION TABLE - DUCT MOUNT (Table No: C-30-01)**

Isolator Model	Colour Code	Capacity Kg (7.5mm deflection)	Dimensions (mm)		Recommended Suspension Rod
			H	D	
SDM-L		30	26	32	M10
SDM-A1	Green	50	26	44	M10/12
SDM-A2	Red	100			



**Note:**

- Due to policy of continuous improvement, the specifications are subject to change without prior notice.
- Measurements are subject to 5% tolerance.
- To achieve good sound suppression, do not overload fitting.

## Multi Layer Pads

Catalogue Number : 9000115 : Rev. 02 Dated 06-07-2019

### 1. Compliance:

British Standards, BS 3974 : Part I

### 2. Application:

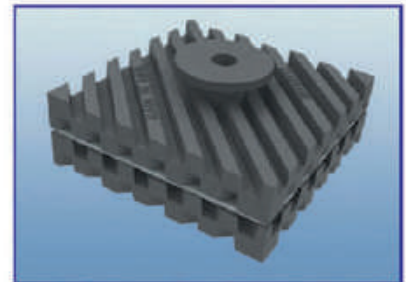
Multi Layer Pads are ideal for applications where Pad type mountings are to be used. Featuring multiple patterned rubber sheets separated by steel load distribution plates, they provide better isolation of noise and vibration than single sheet pads.

### 3. Product Features:

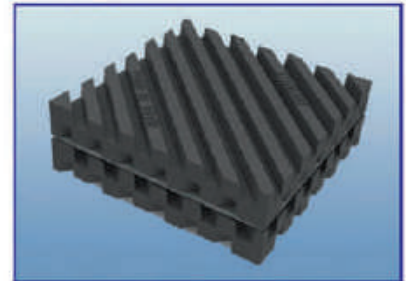
- a) Pad comprises of multiple layers of resilient rubber in series. This permits higher deflection under load than feasible with a single layer.
- b) Load distribution plates ensure full pad area is used and give more linear load deflection characteristics.
- c) Starline Ribbed Multi Layer Pad
  1. Unique Diagonal Ribs help to distribute applied load evenly over larger area of pad surface.
  2. Alternating raised ribs extend pad load range.
  3. Ribs above and below the pad are at right angles to each other, thereby forming non skid surfaces which resist creeping of the equipment.
- d) Starline Square Cell Multi Layer Pad
  1. Square Cell pattern has a higher load bearing capacity than ribbed.
  2. The Grid Design creates "Suction Pockets" for better grip on equipment / floor surface.
  3. The suction pockets make the pad more effective for noise attenuation than ribbed pads.
  4. Solid cell periphery extends pad life by preventing ingress of external contaminants.

### 4. Pads for Bolted Installations :

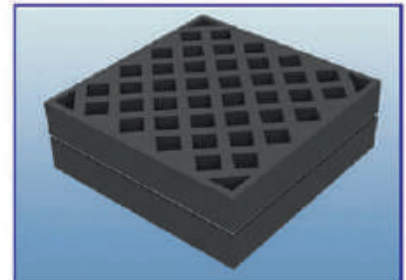
In installations where equipment is bolted to the floor, the bolt must be isolated from the equipment base. Failure to do so, short circuits the pad and allows travel of noise / vibration to the building structure via the bolt. Starline offers the exclusive feature of Multi Layer Pad with pre drilled central hole and supplied complete with Grommet "G1". The Grommet breaks physical contact between the bolt and the equipment base, thereby permitting the pad to perform optimally.



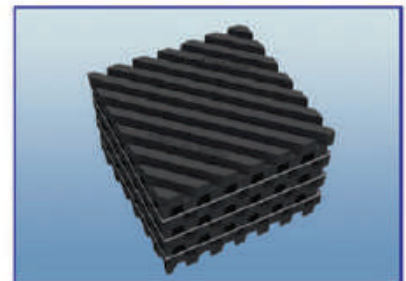
Multi Layer Pad with Grommet G1



Ribbed Multi Layer Pad (SMLP66R/SMLP44R)



Square Cell Multi Layer Pad (SMLP66SC/SMLP44SC)



Ribbed Multi Layer Pad available in ribbed and Square cell models in all sizes

**5. Options:**

Both Ribbed and Square Cell Multi Layer Pads are available with Grommet. Add suffix “G” after Model.

**6. Installation Guidelines:**

- a) The Multi Layer Pad should not extend beyond the equipment base by more than 50 mm.
- b) Wherever the equipment leg has a very small bearing area, cement a 3 mm thick steel load distribution plate over the pad using rubber based adhesive.
- c) Use Starline Multi Layer Pad with Grommet “G1” where the equipment needs to be bolted to the floor.

**SPECIFICATIONS (Table No: C-19-01)**

<b>Ribbed Multi Layer Pad</b>	150 mm x 150 mm x 35 mm (SMLP66R)
Sizes <sup>1</sup>	150 mm x 150 mm x 70 mm (SMLP76R)
	100 mm x 100 mm x 35 mm (SMLP44R)
	100 mm x 100 mm x 70 mm (SMLP54R)
Construction <sup>1</sup>	For SMLP66R and SMLP44R , 2 Layer Ribbed Rubber Sheet, 1 Layer of 16 Gauge Galvanized Steel.For SMLP76R and SMLP54R, 4 Layer Ribbed Rubber Sheet and 3 Layer of 16 Gauge Galvanized Steel.
Material <sup>2</sup>	Natural Rubber/Neoprene/EPDM
Loading	Recommended - 2.8 kg/cm <sup>2</sup> (40 psi) Range : 2 to 4 kg/cm <sup>2</sup> (28 to 57 psi)
Deflection	Approximately 4.5 mm at recommended load for SMLP44R and SMLP66R. Approximately 9 mm at recommended load for SMLP54R and SMLP76R
<b>Square Cell Multi Layer Pad</b>	150 mm x 150 mm x 35 mm(SMLP66SC)
Sizes <sup>1</sup>	150 mm x 150 mm x 70 mm (SMLP76SC)
	100 mm x 100 mm x 35 mm (SMLP44SC)
	100 mm x 100 mm x 70 mm (SMLP54SC)
Construction <sup>1</sup>	For SMLP66SC and SMLP44SC , 2 Layer Ribbed Rubber Sheet, 1 Layer of 16 Gauge Galvanized Steel.For SMLP76SC and SMLP54SC, 4 Layer Ribbed Rubber Sheet and 3 Layer of 16 Gauge Galvanized Steel.
Material <sup>2</sup>	Natural Rubber/Neoprene/EPDM
Loading	Recommended - 3.5 kg/cm <sup>2</sup> (50 psi)Range : 3 to 4.5 kg/cm <sup>2</sup> (43 to 64 psi)
Deflection	Approximately 4.5 mm at recommended load for SMLP44SC and SMLP66SC.Approximately 9 mm at recommended load for SMLP54SC and SMLP76SC

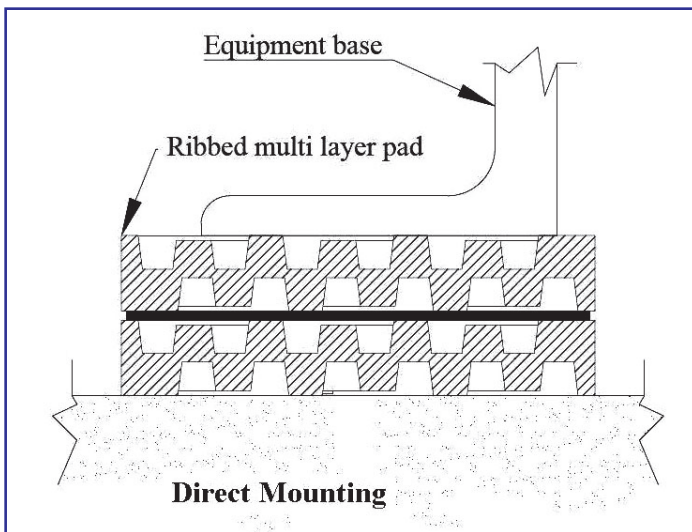
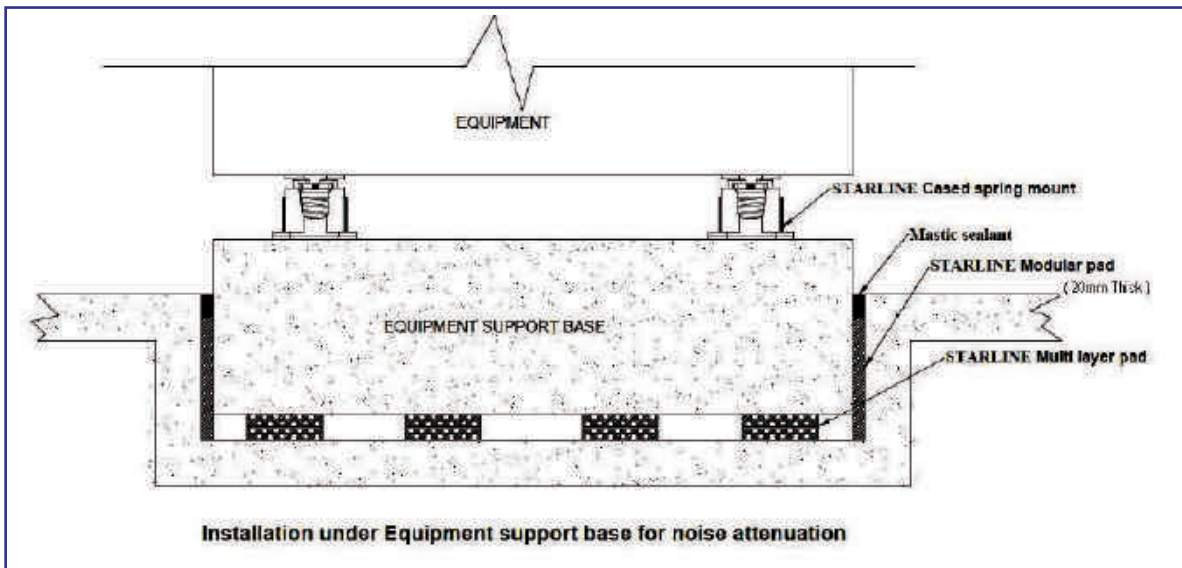
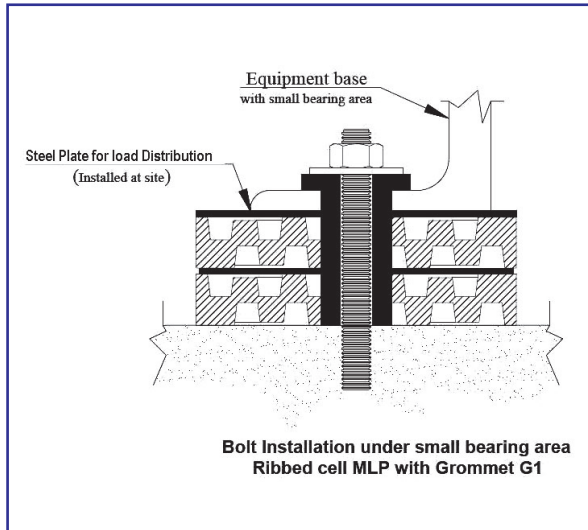
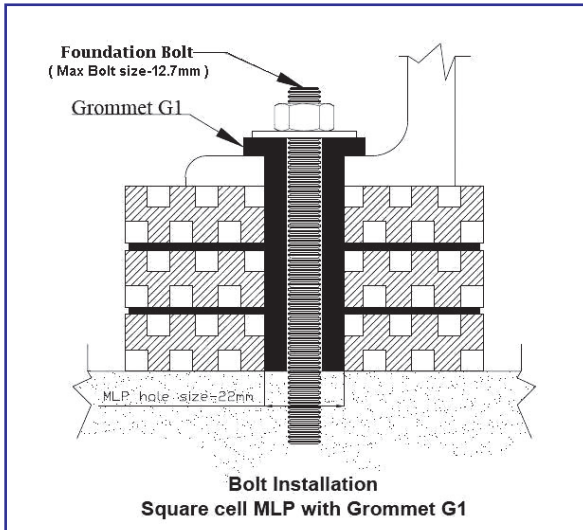
<sup>1</sup> : Pads with higher number of layers available on request

<sup>2</sup> : Other Elastomers like EPDM, Neoprene, SBR etc.. available on request

- Due to policy of continuous improvement, the specifications are subject to change without prior notice.



## Multi Layer Pads



**Note:**

- Due to policy of continuous improvement, the specifications are subject to change without prior notice.
- Measurements are subject to 5% tolerance.
- To achieve good sound suppression, do not overload fitting.



## Restrained Spring Mount - Model: SRSM 25 mm Standard Deflection

**Catalogue Number : 9000116 : Rev. 03 Dated 31-12-2015**

### 1. Compliance:

- 1.1 Designed to BS 1726 -1 : 1987
- 1.2 Tolerance to BS 1726-1 : 2002
- 1.3 SAE and ASHRAE Guidelines for Vibration Isolation

### 2. Application:

Isolation of seismic vibrations for Pumps, Boilers, Cooling Towers, Compressors etc.

### 3. Product Features:

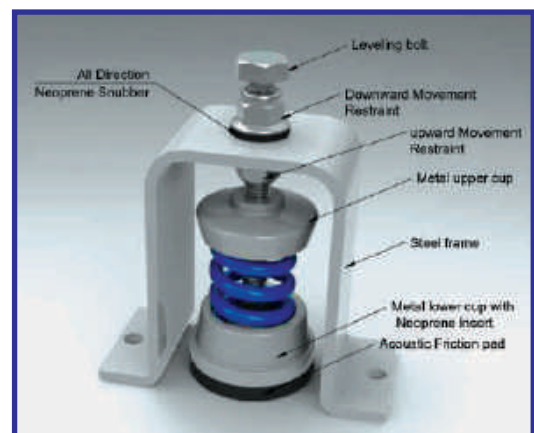
- 3.1 Spring elements are designed to operate without spring buckling with horizontal stiffness equal to vertical stiffness.
  - 3.2 These springs are provided with 50% overload capacity at 1.5 times of rated deflection.
  - 3.3 Steel frame with restrained Neoprene snubbers and dual vertical restraint plates are provided to limit movement of the connected machinery up to maximum 3 mm.
  - 3.4 Replaceable springs and built in leveling arrangements.
  - 3.5 Multi Directional Restraint with vertical limit stops.
  - 3.6 The springs are powder coated with appropriate colour coding to facilitate identification.
  - 3.7 Provided with Neoprene base pad which can isolate high frequency vibrations of audible range.
  - 3.8 The restraining system is capable to withstand 1.0g acceleration force.
  - 3.9 Springs are powder coated to 100 microns paint thickness (exceeds 1,000 hours of salt spray test) conforming to ASTM B-117.
- Options:
- 1. Frame Hot Dip Galvanised (Prefix "HDG")
  - 2. Spring Neoprene Coated (Prefix "N")
  - 3. Spring Plastic Coated (Prefix "P")

### 4. Selection / Ordering

Point load (calculated to include variables such as weight of water in pipe lines etc. if applicable)

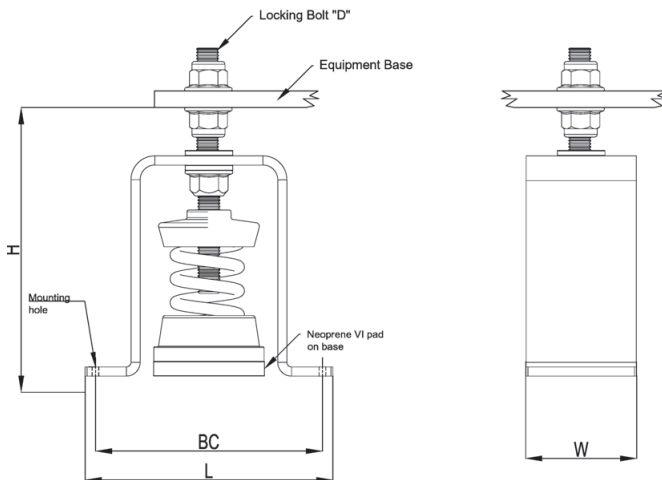
### 5. Installation Guidelines

Included in the packing



**SELECTION TABLE - RESTRAINED SPRING MOUNT FOR 25 mm DEFLECTION**  
(Table No. : SRSM25311215-3)

Model No.	Rated Load (kg)	Spring Colour	Dimensions (mm)					
			L	W	H	BC	D	d
SRSM25-A50	50	Black	120	55	140	100	12	3/8"
SRSM25-A100	100	Blue						
SRSM25-A150	150	Grey						
SRSM25-A200	200	Orange						
SRSM25-A250	250	Brown						
SRSM25-A300	300	Purple						
SRSM25-B200	200	Green	160	72	180	140	14	1/2"
SRSM25-B250	250	Brown						
SRSM25-B300	300	Grey						
SRSM25-B400	400	Purple						
SRSM25-B500	500	Black						
SRSM25-B600	600	Yellow						
SRSM25-B700	700	Blue	180	90	200	160	14	5/8"
SRSM25-C400	400	Brown						
SRSM25-C500	500	Grey						
SRSM25-C600	600	Orange						
SRSM25-C700	700	Green						
SRSM25-C800	800	Brown *						
SRSM25-C900	900	Grey *						
SRSM25-C1000	1000	Orange *						
SRSM25-C1100	1100	Green *						
SRSM25-C1200	1200	Orange **						
SRSM25-C1300	1300	Green **						



\* with WHITE Core Spring  
\*\* with BLUE Core Spring

**Note:**

- Due to policy of continuous improvement, the specifications are subject to change without prior notice.
- Measurements are subject to 5% tolerance.
- To achieve good sound suppression, do not overload fitting.



## Seismic Cased Restrained Spring Mount - Model: SCRSM

25 mm and 50 mm Standard Deflection

Catalogue Number : 9000117 : Rev. 08 Dated 29-04-2021

### 1. Compliance:

- 1.1 Designed to BS 1726 -1 : 1987
- 1.2 Tolerance to BS 1726-1 : 2002
- 1.3 SAE and ASHRAE Guidelines for Vibration Isolation

### 2. Application:

These are widely used as a noise and vibration isolator for Equipment carrying large amount of fluid in motion such as Chiller Units, Pumps, Boilers, Cooling Towers, and Compressors etc. These are also recommended for equipment subjected to external forces such high wind loads, Seismic activity, Machine Loading etc.

### 3. Product Features:

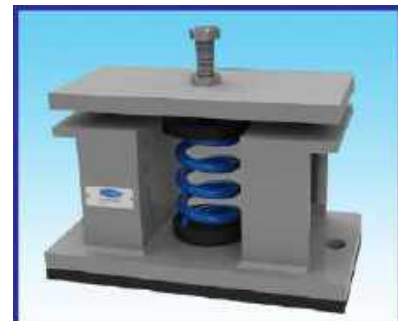
- 3.1 Multi Directional Restraint with Vertical Limit Stops to limit vertical movement of isolating Equipment.
- 3.2 Replaceable springs.
- 3.3 Epoxy Powder Coated / Hot Dipped Galvanized body.
- 3.4 Springs have a deflection of 25 mm/50mm at Rated Load and are designed with 50% overload capacity to compensate for unexpected Load Variations and to reduce Operating Stress.
- 3.5 Casings incorporate Restraining Plates fitted with Resilient Neoprene Snubbers and Hold down Bolt which limit movement of Machinery to maximum of 3 mm.
- 3.6 The springs are provided with Neoprene Base Pad which can isolate High Frequency Vibrations of audible range.
- 3.7 Built-in Leveling arrangements.
- 3.8 The Restraining System is capable of withstanding up to 1.0 g Acceleration Force.
- 3.9 Springs and Casings have Epoxy Powder Coated finish, rated to withstand 1000 hours of Salt Spray Testing as per ASTM B117 Test Procedure. Optional Neoprene Coated springs are also available on request.
- 3.10 The Horizontal Stiffness of these springs are more than Vertical Stiffness. The springs are designed to have maximum 60% of deflection at Rated Load.
- 3.11 Mounting Holes are provided in isolators for bolting to the structures and to the supporting equipment.



Seismic Cased Restrained Spring Mount - A Body



Seismic Cased Restrained Spring Mount - B Body



Seismic Cased Restrained Spring Mount - C Body

**SELECTION TABLE - FOR 25 mm DEFLECTION SEISMIC CASED RESTRAINED SPRING MOUNT**  
(Table No. : SCRSM25-290421)

Model No.	Rated Load (kg)	Spring Colour	Dimensions (mm)					
			L	W	H	BC	D	d
SCRSM25-A25	25	Green	138	90	112	114	12	10
SCRSM25-A50	50	Black						
SCRSM25-A75	75	White						
SCRSM25-A100	100	Blue						
SCRSM25-A150	150	Grey						
SCRSM25-A200	200	Orange						
SCRSM25-A250	250	Grey #						
SCRSM25-A300	300	Orange #						
SCRSM25-B200	200	Green						
SCRSM25-B250	250	Brown	260	100	190	230	16	14
SCRSM25-B300	300	Grey						
SCRSM25-B400	400	Purple						
SCRSM25-B500	500	Black						
SCRSM25-B600	600	Yellow						
SCRSM25-B700	700	Yellow***						
SCRSM25-C400	400	Brown						
SCRSM25-C500	500	Grey	260	100	190	230	16	14
SCRSM25-C600	600	Orange						
SCRSM25-C700	700	Green						
SCRSM25-C800	800	Brown*						
SCRSM25-C900	900	Grey*						
SCRSM25-C1000	1000	Orange*						
SCRSM25-C1100	1100	Green*						
SCRSM25-C1200	1200	Orange**						
SCRSM25-C1300	1300	Green**						
SCRSM25-2C1400	1400	Green	380	100	190	350	20	16
SCRSM25-2C1600	1600	Brown*						
SCRSM25-2C1800	1800	Grey*						
SCRSM25-2C2000	2000	Orange*						
SCRSM25-2C2200	2200	Green*						
SCRSM25-2C2400	2400	Orange**						
SCRSM25-2C2600	2600	Green**						
SCRSM25-4C2800	2800	Green	380	150	190	350	30	24
SCRSM25-4C3200	3200	Brown*						
SCRSM25-4C3600	3600	Grey*						
SCRSM25-4C4000	4000	Orange*						
SCRSM25-4C4400	4400	Green*						
SCRSM25-4C4800	4800	Orange**						
SCRSM25-4C5200	5200	Green**						
SCRSM25-6C5400	5400	Grey*	500	160	190	350	36	30
SCRSM25-6C6000	6000	Orange*						
SCRSM25-6C6600	6600	Green*						
SCRSM25-6C7200	7200	Orange**						
SCRSM25-6C7800	7800	Green**						

\* with WHITE Core Spring

\*\* with BLUE Core Spring

\*\*\* with BLACK Core Spring

# with RED Core Spring



**SELECTION TABLE - FOR 50 mm DEFLECTION SEISMIC CASED RESTRAINED SPRING MOUNT  
(Table No. : SCRSM50-290421)**

Model No.	Rated Load (Kg) Max	Spring Colour	Dimensions (mm)											
			L	W	H	BC	D	d						
SCRSM50-A010	10	Brown	138	90	112	114	12	10						
SCRSM50-A015	15	Orange												
SCRSM50-A030	30	Green												
SCRSM50-A040	40	Red												
SCRSM50-A060	60	White												
SCRSM50-A100	100	Blue												
SCRSM50-A150	150	Black												
SCRSM50-A200	200	Yellow												
SCRSM50-A250	250	Purple												
SCRSM50-A300	300	Grey												
SCRSM50-C200	200	Red							260	100	190	230	14	14
SCRSM50-C250	250	Orange												
SCRSM50-C300	300	Brown												
SCRSM50-C400	400	Green												
SCRSM50-C500	500	Yellow												
SCRSM50-C600	600	Yellow*												
SCRSM50-C700	700	Yellow**												
SCRSM50-C800	800	Yellow***												
SCRSM50-2C1000	1000	Yellow	390	100	190	350	20	16						
SCRSM50-2C1200	1200	Yellow*												
SCRSM50-2C1400	1400	Yellow**												
SCRSM50-2C1600	1600	Yellow***												
SCRSM50-4C2000	2000	Yellow	390	200	190	350	24	20						
SCRSM50-4C2400	2400	Yellow*												
SCRSM50-4C2800	2800	Yellow**												
SCRSM50-4C3200	3200	Yellow**												
SCRSM50-6C3600	3600	Yellow*	500	200	190	360	30	24						
SCRSM50-6C4200	4200	Yellow**												
SCRSM50-6C4800	4800	Yellow***												
SCRSM50-8C5600	5600	Yellow**	610	180	190	360	36	30						
SCRSM50-8C6400	6400	Yellow***												

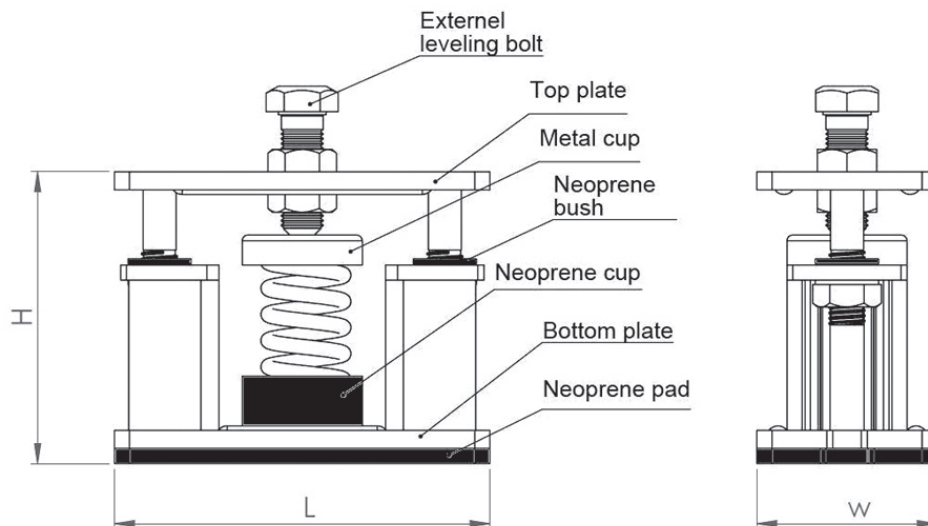
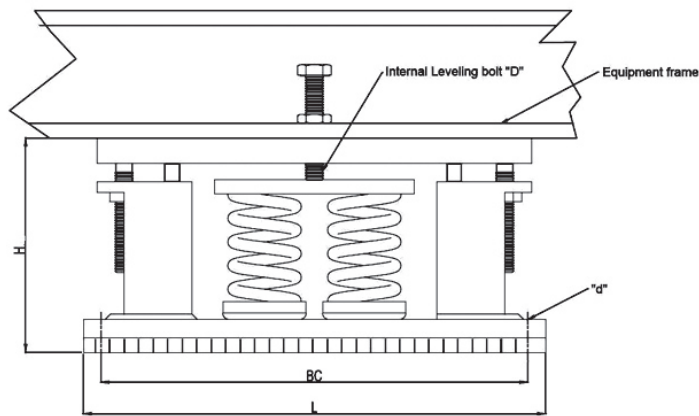
\* with WHITE Core Spring

\*\* with BLUE Core Spring

\*\*\* with RED Core Spring



## Seismic Cased Restrained Spring Mount - Model: SCRSM 25 and 50 mm Standard Deflection



**Note:**

- Due to policy of continuous improvement, the specifications are subject to change without prior notice.
- Measurements are subject to 5% tolerance.
- To achieve good sound suppression, do not overload fitting.



## Housed Spring Mount

Catalogue Number : 9000118 : Rev. 02 Dated 13-12-2014

### 1. Compliance:

- 1.1 Designed to BS 1726 -1 : 1987
- 1.2 Tolerance to BS 1726-1 : 2002
- 1.3 SAE and Ashrae Guidelines for Vibration Isolation

### 2. Application:

The Housed Spring Mounts are used for isolating floor mounted sources of noise and vibration. These are made of nitrile rubber housing, nitrile rubber pads and epoxy powder coated springs. Since springs are housed inside rubber casing, it eliminates low frequency vibrations effectively. The nitrile rubber pads provided below the casing will effectively control vibrations of audible range. These are effectively used in Axial / Centrifugal Fans, Air Handling Units, Chillers and Cooling Towers, Rotary and Multi Cylinder Compressors, Diesel Generating Sets, Mechanical Test Rigs, Isolation of Sensitive Equipment etc..

### 3. Product Features:

- 3.1 Oil resistant Nitrile rubber housing provides better elimination of vibration and sound.
- 3.2 Housed casing protects the springs from corrosion.
- 3.3 The horizontal stiffness of the spring is more than 80% of vertical stiffness. Also fully closed rubber casing prevents further lateral movements. This makes HSM model spring mounts highly stable and durable in all working environments.
- 3.4 The maximum deflection shall be 60% of total deflection at rated load with 50% overload capacity.
- 3.5 Provided with levelling adjustments.
- 3.6 Neoprene pads of 8-13mm are provided which ensure 3-4 mm deflection.
- 3.7 Colour Coded labels for easy identification.
- 3.8 The HSM mounts are available on following material specifications
  - 3.8.1 Zinc plated metallic casings - no suffix
  - 3.8.2 Hot dip galvanized – use HDG as suffix
  - 3.8.3 Stainless steel – use SS as suffix



**HOUSED SPRING MOUNT SELECTION TABLE (Table No.: C-41-01)**

Part No.	Colour Code	Rated Load(kg)	Deflection at Rated Load (mm)										
				A	B	C	D	E	F	G	H	I	J
SHSM10-S	Green	10	20	63	54	60	76	38	M8	48	-	M6	-
SHSM15-S	Black	15	20										
SHSM20-S	Yellow	20	20										
SHSM40-S	Blue	40	20										
SHSM70-S	Grey	70	20										
SHSM25-A	Green	25	25	88	85	90	110	70	M10	78	-	M8	-
SHSM50-A	Black	50	30										
SHSM75-A	Yellow	75	25										
SHSM100-A	Blue	100	25										
SHSM150-A	Grey	150	25										
SHSM200-A	Orange	200	25										
SHSM250-A	Brown	250	25										
SHSM300-A	Purple	300	25	127	130	150	180	95	M16	111	-	M12	-
SHSM200-B	Yellow	200	25										
SHSM300-B	Blue	300	25										
SHSM400-B	Brown	400	25										
SHSM500-B	Orange	500	25										
SHSM600-B	Green	600	25										
SHSM700-B	Pink	700	25										
SHSM800-B	White	800	25										
SHSM1000-B	Purple	1000	25										
SHSM1200-B	Red	1200	25										
SHSM1400-B	Black	1400	25	155	130	150	180	95	M16	111	-	M12	-
SHSM100-C	Blue	100	50										
SHSM200-C	Yellow	200	50										
SHSM300-C	Blue	300	50										
SHSM400-C	Brown	400	50										
SHSM500-C	Orange	500	50										

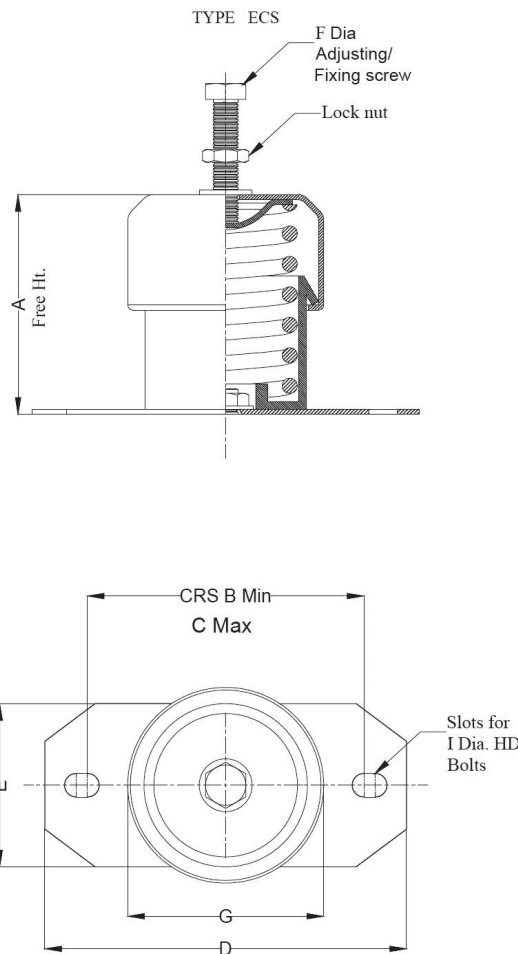


## HOUSED SPRING MOUNT

### Theoretical Isolation Efficiency (Table No.: C-40-01)

Machine Speed (rpm)	Efficiency %		
	15 mm defl.	25 mm defl.	50mm defl.
300	Do Not Use	34.0	75.2
500	68.7	83.3	92.3
750	88.1	93.2	96.7
1000	93.7	96.3	98.2
1200	95.7	97.4	98.7
1500	97.3	98.4	99.2
1750	98.0	98.8	99.4
2000	98.5	99.1	99.5

The above figures are theoretical values only based on the vertical natural frequency of the spring system assuming infinitely stiff structural supports. The effects of high frequency spring coil resonances on low frequency performance are also ignored.



**Note:**

- Due to policy of continuous improvement, the specifications are subject to change without prior notice.
- Measurements are subject to 5% tolerance.
- To achieve good sound suppression, do not overload fitting.



## Inertia Base Frames

Catalogue Number : 9000120 : Rev. 01 Dated 20-02-15

### 1. Compliance:

- 1.1 Designed according to ASHRAE guidelines

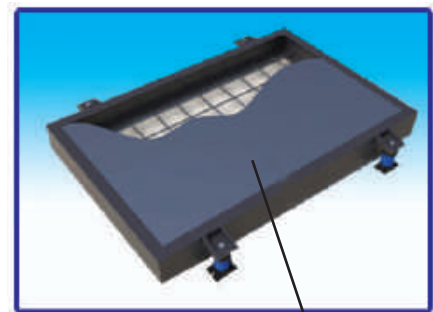
### 2. Application:

- 2.1 Inertia Base Frames are recommended for installation under pumps, compressors, large fans, open type centrifugal chillers, IC Engines, Generators and other equipments likely to have high imbalance forces and large amplitude of vibrations. Inertial Bases:

- 2.1.1 Reduce amplitude of vibrations and thereby ensure smoother working, reduced noise and vibration.
- 2.1.2 Lower the centre of gravity of supported equipment and thereby reduce equipment sway.
- 2.1.3 Minimize motion of equipment during startup and shut down.
- 2.1.4 Provide a means for mounting equipment on vibration isolators.

### 3. Product Features:

- 3.1 Rigid welded steel pouring frames with reinforcement bars and isolator brackets for concrete inertia bases. Supplied in rectangular or T-shape, complete with vibration isolators.
- 3.2 Fabricated using formed steel channel. Optionally available in Structural Steel Channel construction.
- 3.3 The frame height shall be minimum 8- 10% of longest span between isolators with minimum height of 150mm. Standard Heights : 150, 200, 240 and 300 mm. Higher frames can be supplied for special applications.
- 3.4 Available for any equipment dimension. Rectangular shape supplied as standard. T-shape offered where it is required to support elbows of horizontal split casing pumps on the base itself.
- 3.5 Reinforced with 12 mm OD welded in steel bars each way at approximately 200 mm spacing.
- 3.6 Provided with height saving isolator fixing brackets. External brackets are supplied as standard. Recessed brackets are offered in case of space constraints.
- 3.7 Painted with NC Grey Primer.
- 3.8 Supplied together with Starline Isolators. Selection of mount type / models forms part of design process to provide a complete vibration isolation solution. Frames are compatible with open, cased and restrained mounts. These springs are designed with a horizontal stiffness equal to vertical stiffness to assure stability. Also spring will have capacity to over load 50% beyond rated capacity. Depending on isolation frequency, amplitude and location, any spring deflection can be provided.
- 3.9 Pre-located anchor bolts shall be placed inside base frame.
- 3.10 Snubbers shall be provided as standard accessory.



Concrete filling by others

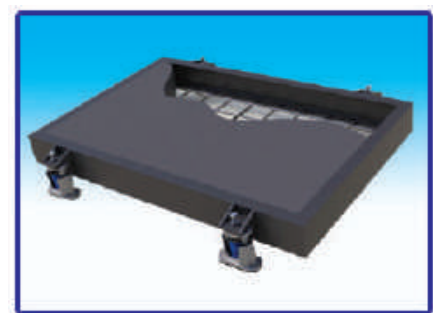


Fig. 1: Rectangular base with external brackets (supplied as standard)

## Inertia Base Frames

### 4. Installation Guide lines:

- 4.1 Place the frame on marine ply or plastic sheet and pour concrete. Position and fix the equipment on the concrete inertia base.
- 4.2 Raise the inertia base with attached equipment over the vibration isolators, maintaining a house keeping gap of about 50 mm under the base. Follow standard spring mount installation procedure.

### 5. Ordering:

- 5.1 Concrete inertia bases are custom made for specific installations. Our Staff will propose the optimal frame design and vibration isolator selection for the application. Provide details of :
  - 5.1.1 Equipment to be mounted (dimensions, total weight, weight distribution, imposed loads, motor rating, pipe connection sizes etc..)
  - 5.1.2 Location of equipment in building.
  - 5.1.3 Project specifications for vibration isolation.

### 6. General Design Guidelines followed:

Starline Inertia Base Frames comply fully with the design recommendations made by ASHRAE for Type C - Concrete Inertia Bases. The broad design guidelines followed are:

- 6.1 Frame height is at least 8 to 10% of longest span between isolators, with a minimum of 150 mm. ASHRAE recommendations relating height to motor ratings are followed where applicable. Height in excess of 300 mm is rarely proposed.
- 6.2 For pumps, if space permits and elbow offset from flange is exactly known, it is preferable to size the base to support elbows. If elbows overhang the base, it is crucial to provide isolation below them.
- 6.3 While ASHRAE states that mass of the concrete inertia base is not usually a design consideration, we recommend it should be at least equal to the supported load. Frames are designed accordingly.
- 6.4 Rectangular frames with external brackets are supplied as standard. Other designs are proposed if needed.

### 7. Notes:

- 7.1 Mounts shown with each base are for illustration only. Open, Cased or Restrained Mounts may be used as required.
- 7.2 Large bases may have more than four isolator fixing brackets.

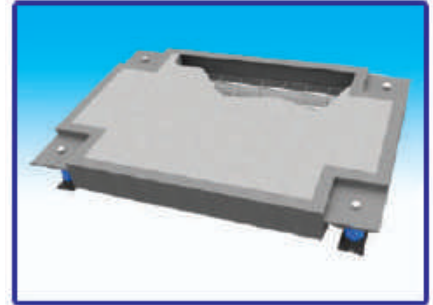


Fig 2: Rectangular base with recessed brackets (add suffix 'RB' to model)

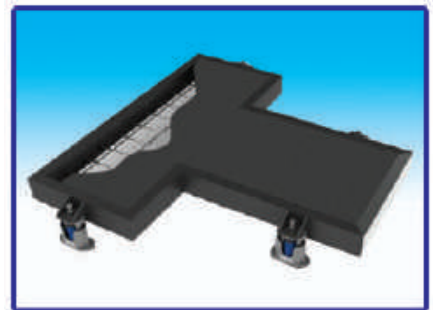


Fig 3: T-Shape base with external brackets (add suffix 'T' to model)

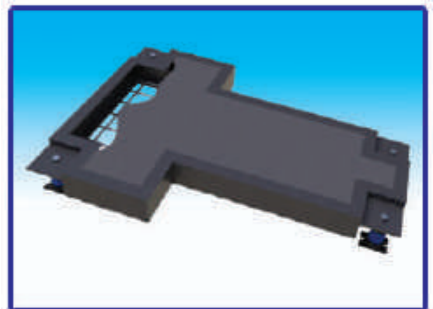


Fig 4: T-Shape base recessed brackets (add suffix 'T-RB' to model)



## Industrial Stainless Steel Bellows (SISB)

Catalogue Number : 9000121 : Rev. 01 Dated 02-02-2016

### 1. Introduction

All materials expand and contract with thermal change. In the case of piping, this dimensional change can produce excessive stresses throughout the piping system. Metal Bellows are cost effective means of achieving piping flexibility. The expansion joints are installed within ten pipe diameters downstream of elbows, tees, valves or vibrating sources.

### 2. Salient Features:

- 2.1 Bellows are made from Stainless Steel convolutions of sufficient thickness and reinforcement necessary to contain rated pressure.
- 2.2 The Bellows are designed for high cycle life to provide reliable decades of operation.
- 2.3 Flow liners (optional) provided to minimize turbulence, pressure drop, erosion etc.
- 2.4 Limit rods are provided to limit axial movement, while retaining ability to accommodate angular rotation. These can be provided with wide variety of material like GI, HDG, SS 304, SS 316L, SS 321 etc.
- 2.5 These Bellows are available on wide variety of materials such as SS 304, SS 316L, SS 321 etc.
- 2.6 The Flanges and Collars are provided with Epoxy coated Steel.



Standard Type

### 3. Non Destructive Testing:

- 3.1 Radiography Test
- 3.2 Liquid Penetrant Test
- 3.3 Magnetic Particle Test
- 3.4 Ultrasonic Test
- 3.5 Halogen Leak Test
- 3.6 Air Jet Leak Test
- 3.7 Hydrostatic Pressure Test

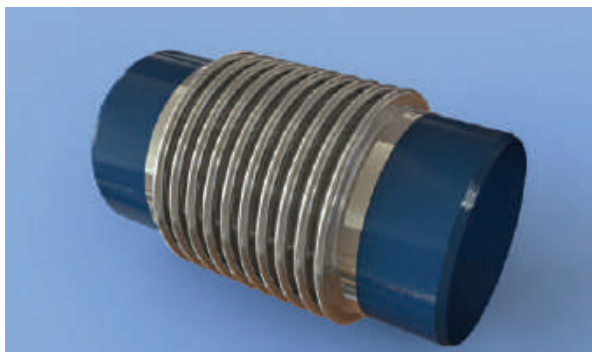
### 4. Destructive Testing:

- 4.1 Fatigue Cyclic Life Test
- 4.2 Squirm Test
- 4.3 Meridional Yield Rupture Test

## SELECTION TABLE - INDUSTRIAL STAINLESS STEEL BELLOWS (Table No. SISB020216)

Model	Pipe Size Inch (mm)	Length mm	Axial Compression mm	Axial Elongation mm	Angular Movement in Degrees
SISB 025	1" (25 mm)	200	20	20	15
SISB 032	1 ¼" (32 mm)	200	20	20	15
SISB 040	1 ½" (40 mm)	200	20	20	15
SISB 050	2" (50 mm)	200	20	20	15
SISB 065	2 ½" (65 mm)	200	20	20	15
SISB 080	3" (80 mm)	200	20	20	15
SISB 100	4" (100 mm)	250	25	25	15
SISB 125	5" (125 mm)	250	25	25	15
SISB 150	6" (150 mm)	250	25	25	15
SISB 200	8" (200 mm)	250	25	25	15
SISB 250	10" (250 mm)	250	25	25	15
SISB 300	12" (300 mm)	250	25	25	15
SISB 350	14" (350 mm)	300	25	25	15
SISB 400	16" (400 mm)	300	25	25	15
SISB 450	18" (450 mm)	300	25	25	15
SISB 500	20" (500 mm)	300	25	25	15
SISB 610	24" (610 mm)	300	25	25	15

### Optional Designs:



Weld Neck Type



Stub Flange

### Technical Data:

- Temperature Range : - 50°C to 400°C
- Pressure Range : 10 - 40 bars
- Burst Pressure : 4 times Rated Pressure
- Fluids for handling : Water, Weak Acids / Alkalies
- Flange : Epoxy Coated Flanges
- Flow Liner : No Liner as standard. SS 304, SS 316L and SS 321 on request
- Bellows : SS 304 Standard. SS 316L and SS 321 as per request
- Tie Rods : Galvanised Rods as Standard. Hot Dipped Rods, SS 304, SS 316 and SS 321 Rods as per request.



## INDUSTRIAL STAINLESS STEEL BELLOWS

### Model Decoding for Ordering:

Basic Model with Size (7 Digit)	End Connection (1 Digit)	Pressure Range (2 Digits)	Bellow Material (3 Digits)	Flow Liner Material (3 Digits)	Tie Rod Material (3 Digits)
As per Previous Table	-O -Standard	-10- (for PN 10)	-304- (for SS 304)	-000- (for No Liner)	-000- (No Tie Rod)
	-W -Weld Neck	-16- (for PN 16)	-316- (for SS 316L)	-304- (for SS 304)	-0GI- (for Galvanised)
	-S - Stub Type	-20- (for PN 25)	-321- (for SS 321)	-316- (for SS 316L)	-HDG- (for Hot Dip)
		-40- (for PN 40)		-321- (for SS 321)	-304- (for SS 304)
					-316- (for SS 316L)
					-321- (for SS 321)

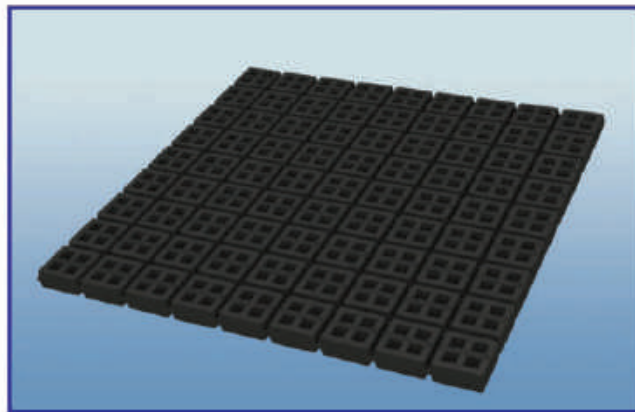
**Note:**

- Due to policy of continuous improvement, the specifications are subject to change without prior notice
- Measurements are subject to 5% tolerance.



## Floating Floor Mounts

Catalogue Number : 9000124 : Rev. 01 Dated 05-06-2018



### 1. Compliance:

1.1 British Standards, BS 3974 : Part I

### 2. Application:

2.1 The Pads are suitable for the isolation of noise, shock and high frequency vibration produced by Mechanical, Industrial or Process Equipments on the floor.

### 3. Product Features:

- 3.1 Superior to metal springs in terms of greater sound insulation ability.
- 3.2 Low cost, easy to install.
- 3.3 Pads are designed for a maximum deflection of approximately 20% of its unloaded thickness.
- 3.4 Load can be distributed over large surface area which reduces efforts in Leveling.
- 3.5 Floating Floor Pads are available in various sizes like like 2x2x2 inches, 2x2x3 inches, 3x3x4 inches etc.. to suit variety of applications.

### 4. Technical Specifications:

- 4.1 Model : FMRP
- 4.2 Standard Size : 450x450x50 mm, 450x450x75 mm, 450x450x100 mm
- 4.3 Material : Compounded Natural Rubber. Other Elastomers such as EPDM, Neoprene, SBR etc.. available on request.
- 4.4 Loading : Recommended upto 75 kg per module

## Pre-Compressed Combination Spring Hangers - Light Duty

Catalogue Number : 9000125 Rev. 03 dated 01-06-2015

### 1. Compliance:

- 1.1 Designed to BS 1726 -1 : 1987
- 1.2 Tolerance to BS 1726-1 : 2002
- 1.3 SAE and Ashrae Guidelines for Vibration Isolation

### 2. Application:

Generally for light duty applications like small fans, humidifiers, variable air volume boxes, small fan coil units, small size piping and air ducting in mechanical rooms.

### 3. Product Features:

- 3.1 Double protection against transmission of noise to structures is assured as the neoprene component provides an effective acoustic barrier and the moulded neoprene cup below the spring prevents metal to spring contact, thus effectively isolating the suspended equipment from the structure.
- 3.2 The Springs are designed to have a stiffness ratio more than unity which ensures buckle free operation throughout load range.
- 3.3 Suspension rod misalignment (30 degree arc) is compensated in hanger design.
- 3.4 Locking rubber bush centralizes the spring and prevents dislocation.
- 3.5 Printed Deflection scale to indicate total spring deflection.
- 3.6 Pre-Compress spring effectively minimises transfer of variation in the pipe load/ equipment during installation thus protecting equipment connections/flexible joints.
- 3.7 Springs are powder coated with appropriate color coding to facilitate identification.
- 3.8 Frame is made of G.I. steel and powder coated to 100 microns paint thickness (exceeds 1000 hours of salt spray test) and conforming to ASTM B-117.

Options:

- 1) Frame Hot Dip Galvanised (Prefix Part Number with "HDG")
- 2) Spring Neoprene Coated (Prefix Part Number with "N")
- 3) Spring Plastic Coated (Prefix Part Number with "P")

- 3.9 The Springs are designed to have additional 50% of rated load at 1.5 of rated deflection.

### 4. Selection / Ordering:

Point load (Calculated to include all variables such as weight of water in pipe lines etc if applicable).

### 5. Installation Guide lines:

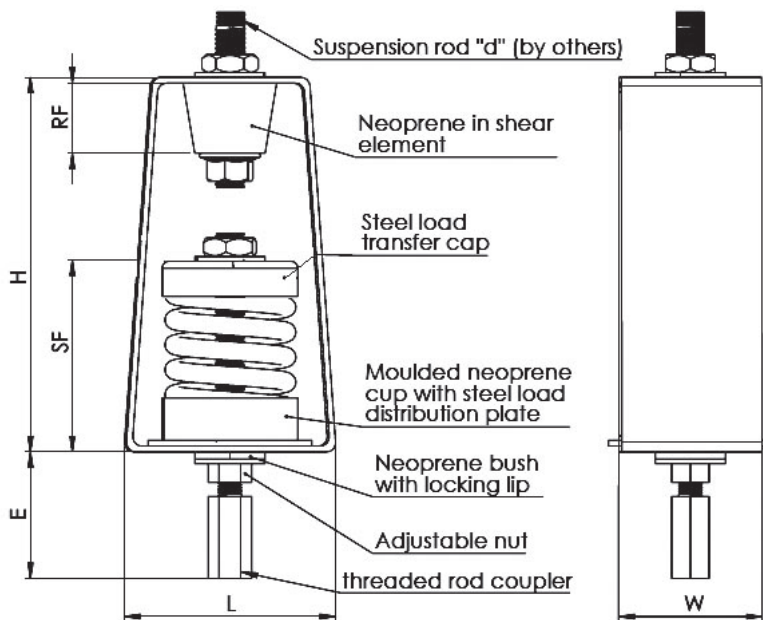
Included in packaging.



**SELECTION TABLE FOR PRE COMPRESSED COMBINATION SPRING HANGERS - LIGHT DUTY (Table No: C-17-01)**

Isolator Model	Rated Deflection	Rated Load (kg)	Spring Colour	Dimensions (mm)						
				L	W	SF*	RF	H	d(max)	E(approx)
SPCCSHL-M6	13 mm	6	Orange	58	50	44	30	100	M12	40
SPCCSHL-M9		9	Grey							
SPCCSHL-M15		15	Blue							
SPCCSHL-M21		21	Green							
SPCCSHL-M28		28	White							
SPCCSHL-P6	25 mm	6	Green	58	50	64	30	120	M12	40
SPCCSHL-P9		9	Red							
SPCCSHL-P15		15	Black							
SPCCSHL-P21		21	Yellow							
SPCCSHL-P28		28	Blue							
SPCCSHL-P35		35	Grey							
SPCCSHL-P50		50	Orange							

\* Represents average free height in each grouping of models. Height of some models in group may vary slightly from this figure.



**Note:**

- Due to policy of continuous improvement, the specifications are subject to change without prior notice.
- Measurements are subject to 5% tolerance.
- To achieve good sound suppression, do not overload fitting.



## Precompressed Hanger - Light Duty

Catalogue Number : 9000126 : Rev. 01 Dated 23-06-2021

### 1. Compliance:

- 1.1 Designed to BS 1726 -1 : 1987
- 1.2 Tolerance to BS 1726-1 : 2002
- 1.3 SAE and Ashrae Guidelines for Vibration Isolation

### 2. Application:

Suspension of water pipe line and seismically restrained rotating equipments.

### 3. Product Features:

- 3.1 The Springs are designed to have a stiffness ratio more than unity which ensures buckle free operation throughout load range.
- 3.2 Suspension rod misalignment (30 degree arc) is compensated in hanger design.
- 3.3 Direct connection to lower suspension rod by means of a threaded rod coupler.
- 3.4 Printed deflection scale to indicate total spring deflection.
- 3.5 Pre compressed spring effectively minimizes transfer of variations in pipe load during filling of pipes thus protecting equipment connections / flexible joints and also prevents overloading of the main equipment isolators.
- 3.6 Locking rubber bush centralizes the spring and prevents dislocation.
- 3.7 Springs are powder coated with appropriate color coding to facilitate identification.
- 3.8 Frame is made of G.I. steel and powder coated to 100 microns paint thickness (exceeds 1000 hours of salt spray test) and conforming to ASTM B-117.
- 3.9 The Springs are designed to have additional 50% of rated load at 1.5 of rated deflection.

Option:

- 1) Frame Hot Dip Galvanised (Prefix Part Number with "HDG")
- 2) Spring Neoprene Coated (Prefix Part Number with "N")
- 3) Spring Plastic Coated (Prefix Part Number with "P")

### 4. Selection / Ordering:

Point load (Calculated to include all variables such as weight of water in pipe lines etc if applicable).

### 5. Installation Guide lines:

Included in packaging.

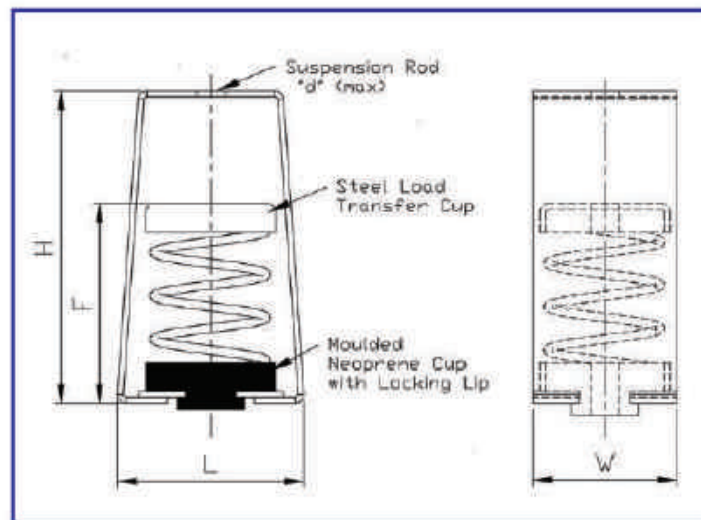


**SELECTION TABLE FOR PRECOMPRESSED HANGERS - LIGHT DUTY**  
**(Table No: SHLD-24-11-20)**

Isolator Model	Rated Deflection	Rated Load (kg)	Spring Colours	Dimension (mm)				
				L	W	F*	H	d(max)
SSHL-M6C	13 mm	6	Orange	65	50	54	75	M10
SSHL-M9C		9	Grey					
SSHL-M15C		15	Blue					
SSHL-M21C		21	Green					
SSHL-M28C		28	White					
SSHL-P6C	25 mm	6	Green	65	50	70	90	M10
SSHL-P9C		9	Red					
SSHL-P15C		15	Black					
SSHL-P21C		21	Yellow					
SSHL-P28C		28	Blue					
SSHL-P35C		35	Grey					
SSHL-P50C		50	Orange					

\* Represents average free height in each grouping of models. Height of some models in group may vary slightly from this figure.

### Precompressed Hanger - Light Duty



**Note:**

- Due to policy of continuous improvement, the specifications are subject to change without prior notice.
- Measurements are subject to 5% tolerance.
- To achieve good sound suppression, do not overload fitting.



## SOLE DISTRIBUTOR



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