

Open Spring Mounts Type AS / AL / AW

25mm Static Deflection

APPLICATION

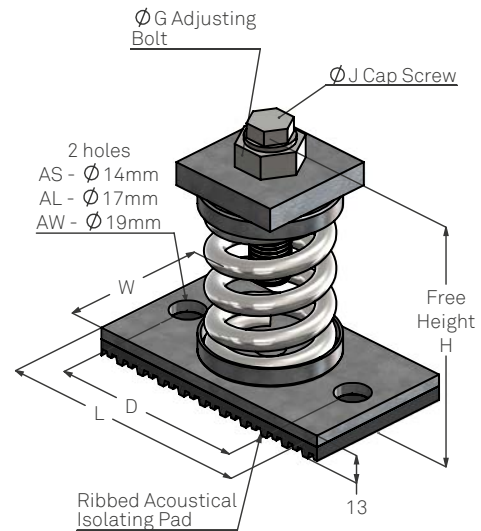
For vibration isolation where a rugged all-purpose spring mount is required especially for outside use or where space is limited. Typically used on cooling towers, pumps, and reciprocating engine sets.

FEATURES

- Heavy duty stable steel spring
- Built-in leveling bolt with locking cap screw, capable of compensating for full static deflection (AL, AW only)
- Noise absorbing non-skid ribbed pad bonded to base
- Springs are steel cup located for easy interchange

OPTIONS

- Extra layer of ribbed pad on base with steel shim spacer for higher acoustical isolation



AS / AL / AW

AS / AL / AW Dimensions

Type	H mm	L mm	W mm	D mm	G mm	J mm
AS	108	118	65	88	M16	M10
AL SERIES						
92-95	136	132	65	98	M16	M10
96-97	139	132	65	98	M16	M10
98	141	132	65	98	M16	M10
99-100	147	132	65	98	M16	M10
101-102	150	132	65	98	M16	M10
AW SERIES						
400-425	153	166	100	126	M20	M12
1,000-1,628	158	166	100	126	M20	M12
1,731	160	166	100	126	M20	M12

AS / AL / AW PRODUCT GUIDE

Type	Max Load kg	Static Deflection mm	Spring Constant kg/mm	Spring Colours	
				Stripe 1	Stripe 2
AS-9	10	33	0.30	Yellow	-
AS-10	15	33	0.45	Brown	-
AS-11	30	33	0.9	Blue	-
AS-12	50	28	1.8	Black	-
AS-13	75	25	3.0	Red	-
AS-14	125	25	5.0	Green	-
AS-16	175	20	8.8	Grey	-
AS-17	200	15	13.3	Orange	-
AL-92	50	33	1.5	Yellow	-
AL-93	100	33	3.0	Brown	-
AL-94	150	30	5.0	Blue	-
AL-95	200	30	6.7	Black	-
AL-96	250	28	8.9	Red	-
AL-97	300	28	10.7	Green	-
AL-98	400	25	16.0	Grey	-
AL-99	550	23	23.9	Orange	-
AL-100	650	20	32.5	Orange	Black
AL-101	775	20	38.7**	Orange	-*
AL-102	950	20	47.5**	Orange	Black*
				Outer	Inner
AW-400	200	33	6.1	Black	-
AW-422	275	33	8.3	Black	Blue
AW-423	300	33	9.1	Black	Yellow
AW-425	380	30	12.7	Black	Red
AW-1000	450	25	18.0	Green	-
AW-1023	510	25	20.4	Green	Yellow
AW-1024	550	25	22.0	Green	Green
AW-1025	580	25	23.2	Green	Red
AW-1026	690	25	27.6	Green	White
AW-1600	775	25	31	Grey	-
AW-1622	820	25	32.8	Grey	Blue
AW-1624	875	25	35	Grey	Green
AW-1626	1,000	25	40	Grey	White
AW-1627	1,100	25	44	Grey	Orange
AW-1628	1,150	24	47.9	Grey	Grey
AW-1731	1,275	20	63.8	Orange	Grey/Yellow

* With inner spring (green) square AL top cup

** Averaged over full deflection range

DESIGN

All type A spring mounts are designed with a horizontal to vertical stiffness ratio between 0.9 and 1.1 at rated load; ratio of spring diameter to loaded height minimum 0.8; and a rated maximum operating deflection of 2/3 deflection to solid.

ACOUSTICAL ISOLATION

Steel spring mounts provide effective isolation of mechanical vibration. However, the spring itself has its own inherent surge frequency depending on its physical geometry and material properties. As such, it is possible to transmit certain audible level frequencies.

To minimise these audible level transmissions, all mounts are fitted with a resilient rubber base. For type AS, AL and AW mounts, the standard cup has a theoretical effectiveness of 95% to 98% in isolating such transmissions.

If greater high frequency isolation is required, a second layer of pad is attached to the base, separated from the first by a 1.5mm metal shim plate.

MOUNT SELECTION

When selecting mounts, it is recommended that a safety factor of 10-20% is applied to the calculated mass of equipment to avoid overloading of mounts. If maximum rated deflections are required, then equipment should be weighed and an accurate assessment of point loads made.

For equipment using more than four mounts, endeavour to distribute them so that each mount has equal loading. If this cannot be done, mount selection must be made on the basis of matching static deflections as closely as possible.

INSTALLATION

1. Remove cap screw and washer.
2. Locate mount under hole in equipment leg or base (see note below).
3. Replace cap screw and washer but do not tighten.
4. Raise equipment to desired elevation and level by turning adjusting bolt anticlockwise to raise.
5. Tighten cap screw to lock assembly.

NOTE:

1. It maybe necessary to lift or block up equipment to place mount in position.
2. The equipment is supported on the head of the bolt.

BOLTING DOWN

If bolting is required, the lower plate must be located and fastened to the floor before equipment is placed on its mounts. Bolts must only be tightened a half turn more than hand tight. An isolation sleeve should be used to prevent the transmission of acoustical frequencies by metal to metal contact between the bolt and the mount, see Datasheet IS for details.

TECHNICAL ASSISTANCE

All Embelton offices can provide detailed technical assistance on the use of this product in specific applications.

CONDITIONS OF SALE

These products are sold subject to the published Embelton General Conditions of Sale, copies of which maybe inspected on request.

SPECIFICATION

Spring mounts shall be free standing and laterally stable without any housing, incorporating upper and lower spring locating cups at least one of which must be capable of isolating acoustical frequencies even when bolted down. Mounts shall have an inbuilt leveling facility capable of compensating for the rated spring design deflection and of being locked into position. Springs shall have a minimum additional travel to solid of 50% rated deflection and a diameter not less than 0.8 of loaded height; they shall be type AS, AL or AW as supplied by Embelton.