

Leaf Spring Mounts (Y-Mount)

PRODUCT DATA

APPLICATION

The Leaf Spring Mount (LSM) was primarily designed to protect shipborne equipment from underwater explosions but has during the years found a large number of applications in both military and civilian use. Although the LSM nowadays is often replaced by newly developed shock mounts, there are some applications where it is still the most effective solution.

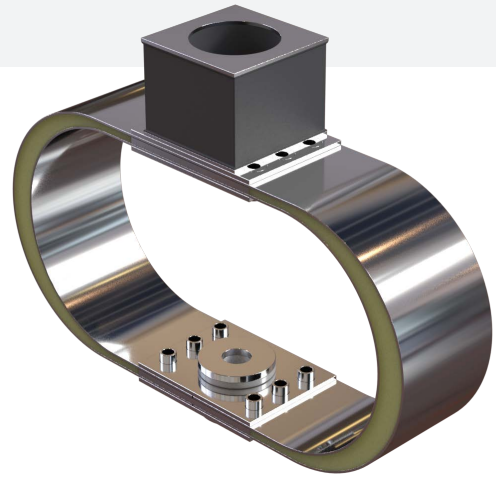
CONSTRUCTION

The basic design uses two or more high-tensile stainless steel U-formed leaves, that together form an elliptical shape when joined together in the center with plates. The spaces between the U-formed leaves are filled with a special epoxy resin compound with high damping properties. The characteristics of the mount under shock load are determined by the chosen metal construction, while the efficiency of the damping is obtained by the epoxy resin. The Y-Mount distinguishes itself from the X-Mount by an additional rubber element at the top which improves sound isolation significantly.

GENERAL

Optional rubber mounting washers/rings instead of nylon inserts are available to improve sound isolation. All LSM-mounts are registered under a NATO Stock Number. Trelleborg AVS-NL CAGE code is H0040.

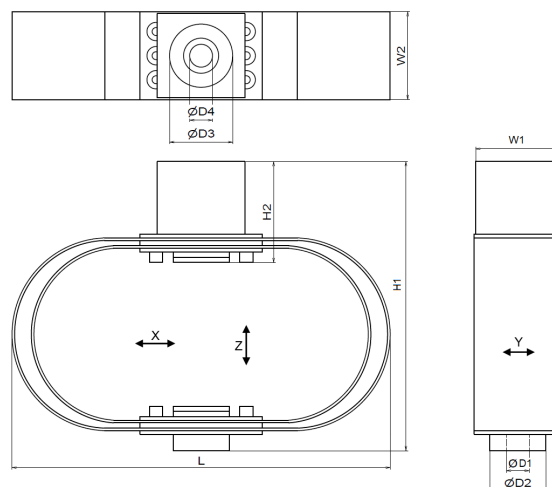
Typical applications of the LSM include but are not limited to engines, switch cabinets, electronic equipment and floating floors on board of various types of naval ships worldwide.



CHARACTERISTICS

- Stainless steel U-formed leaves
- Easily fitted
- Stainless steel leaf and washer
- Epoxy resin compound
- Elastomer and nylon bushes
- Multi-directional shock mount with relatively high damping grade
- Transmitted acceleration limited to 5 G (longitudinal) and to 15 G (vertical and transversal)
- Displacement up to 60mm (vertical) and 40mm (radial)
- Nominal load range: 10 to 450 kg
- Captive design
- Good sound isolation (with optional rubber inserts)
- Temperature range: -20 °C to +40 °C
- Registered under NATO stock numbers (NSN)

TECHNICAL DRAWING



Leaf Spring Mounts (Y-Mount)

NOMINAL LOAD (KG)	STATIC LOAD RANGE (KG)	STATIC STIFFNESS (N/mm)			STATIC DEFLECTION (mm)	
		X	Y	Z	MIN.	MAX.
10	9-18	7	17	13	6,2	8,6
20	18-35	14	35	26	6,2	8,6
45	35-55	24	58	44	8,6	11,6
70	55-90	39	91	70	8,2	11,2
110	90-135	61	149	120	7,7	10,5
180	135-250	175	665	350	4,3	5,9
320	250-380	219	788	500	5,4	7,4
450	380-550	385	1400	875	4,3	5,9

NOMINAL LOAD (KG)	ARTICLE NUMBER	NATO STOCK NUMBER (NSN)	DIMENSIONS ¹ (mm)								
			L	H	H2	W	W2	D	D2	D3	D4
10	116005010	5340-99-778-9769	203	134	41	48	51	9 (M8)	32	36	M6
20	116005020	5340-99-778-9770	203	134	42	48	51	9 (M8)	32	36	M6
45	116005045	5340-99-778-9771	216	166	56	48	51	13 (M12)	32	36	M10
70	116005070	5340-99-778-9772	216	166	57	48	51	13 (M12)	32	36	M10
110	116005110	5340-99-778-9773	216	166	58	48	51	13 (M12)	32	36	M10
180	116005180	5340-99-778-9774	297	229	77	96	102	21 (M20)	64	72	M16
320	116005320	5340-99-778-9775	297	229	79	96	102	21 (M20)	64	72	M16
450	116005450	5340-99-778-9776	297	229	81	96	102	21 (M20)	64	72	M16

1 The dimensions are stated in millimeters and apply for an unloaded leaf spring mount.

2 Static deflection of the leaf spring mount at nominal load.

TYPE	PERMISSIVE DEFORMATION (mm)			MAX. TRANSMITTED ACCELERATION AT STATIC LOAD (M/S ²)		
	X	Y	Z	X	Y	Z
All types	± 45	± 45	± 60	50	150	150

Y-TYPE SHOCK MOUNT WITH FIX KIT “TYPE 1” AND “TYPE 2”

FOR Y-TYPE	ARTICLE NUMBER	NATO STOCK NUMBERS	
		Y-MOUNT	FIX KIT 1
10	116005016	5340-99-778-9769	5340-99-861-9603
20	116005026	5340-99-778-9770	5340-99-861-9603
45	116005046	5340-99-778-9771	5340-99-702-0730
70	116005076	5340-99-778-9772	5340-99-702-0730
110	116005116	5340-99-778-9773	5340-99-702-0730
180	116005186	5340-99-778-9774	5340-99-968-1694
320	116005326	5340-99-778-9775	5340-99-968-1694
450	116005456	5340-99-778-9776	5340-99-968-1694

FOR Y-TYPE	ARTICLE NUMBER	NATO STOCK NUMBERS	
		Y-MOUNT	FIX KIT 2
10	116005017	5340-99-778-9769	5340-99-131-1422
20	116005027	5340-99-778-9770	5340-99-131-1422
45	116005047	5340-99-778-9771	5340-99-551-2649
70	116005077	5340-99-778-9772	5340-99-551-2649
110	116005117	5340-99-778-9773	5340-99-551-2649
180	116005187	5340-99-778-9774	5340-99-968-1695
320	116005327	5340-99-778-9775	5340-99-968-1695
450	116005457	5340-99-778-9776	5340-99-968-1695

