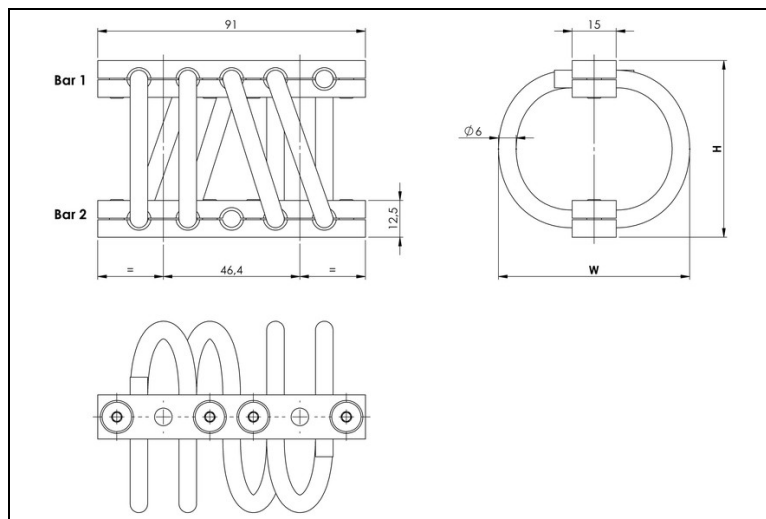


# WIRE ROPE ISOLATOR

DEFINITION  
**series HH8**



- All metal multidirectional anti-vibration/shock mounts
- Exceptional reliability and long life
- High damping
- No aging
- Corrosion resistant
- Unequalled temperature range : - 180°C to 300°C (-290°F to 570°F)
- Great adaptability/versatility

Specials on request

(material size and number of loops, etc.)

Dimensions are in millimeters. For reference only

SERIES
Materials and finishes (meets RoHS requirements)
<b>HH8</b>
<b>Cable:</b> stainless steel galvanized available: HHG
<b>Retainer bars:</b> aluminium alloy/ SurTec
<b>Screws:</b> alloy steel/zinc plate
<b>Inserts:</b> stainless steel
All stainless steel: HHSS
Other materials on request

MODEL			
	height H (mm)	width W (mm)	weight (kg)
-10	45	54	0,16
-20	51	61	0,17
-25	56	69	0,18
-30	60	78	0,20
-35	60	87	0,21
-38	64	93	0,21
-40	64	98	0,22
-50	79	106	0,24
-60	95	127	0,28

INTERFACES			
fixtures holes D	Bar 1		
	2 through holes ø7mm	2 through holes ø7mm countersunk k 90°	2 inserts M6
Bar 2			
2 through holes ø7mm	TM2	not standard	not standard
2 through holes ø7mm countersunk 90°	TCM	CM2	not standard
2 inserts M6	TIM	CIM	IM2

**H H 8 - 1 0 C I M**

SERIE: HH8

'Half-Helical' mount  
from the HH8 series

MODEL: -10

height: 45mm

width: 54mm

weight: 0,16kg

loops: serie

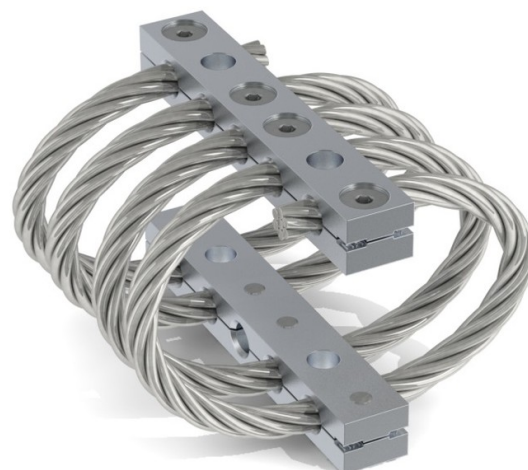
standard is 04 loops

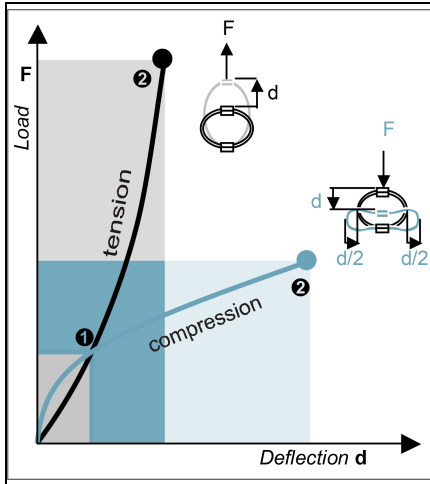
INTERFACE: CIM

2 through holes ø7mm

countersunk 90° in bar 1,

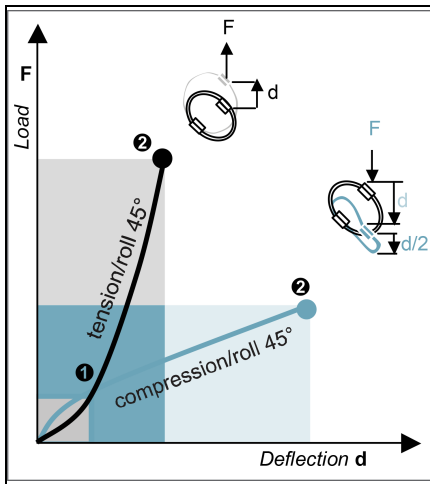
2 inserts M6 in bar 2





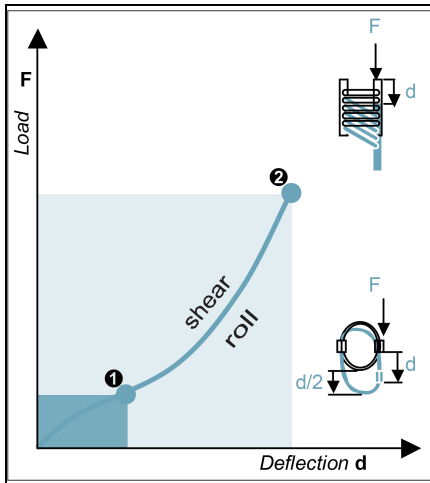
### COMPRESSION AND TENSION

HH8 Series	Model	-10	-20	-25	-30	-35	-38	-40	-50	-60
1. Max Static	F daN	36,7	28,8	22,3	17,2	14,0	11,7	10,9	9,6	7,1
	d mm	3,3	4,3	5,2	5,8	5,8	6,5	6,5	9,0	11,6
2. Max Shock	F daN	110	86,5	66,9	51,5	42,1	35,2	32,7	28,7	21,3
	d mm	18	23	27	31	31	35	35	48	63
3. Max Vibration	2a mm	2,0	2,6	3,1	3,5	3,5	3,9	3,9	5,4	6,9
	f Hz	9,2	8,0	7,4	7,1	7,3	6,9	7,0	5,7	5,0
1. Max Static	F daN	36,7	28,8	22,3	17,2	14,0	11,7	10,9	9,6	7,1
	d mm	2,9	3,6	4,4	5,4	5,8	6,5	6,5	8,4	10,5
2. Max Shock	F daN	415	315	253	212	202	175	126	119	84,8
	d mm	13	16	21	28	36	42	40	44	52
3. Max Vibration	2a mm	1,5	1,8	2,4	3,1	4,0	4,7	4,5	4,9	5,8
	f Hz	12,0	10,7	9,6	8,6	8,0	7,5	7,5	6,9	6,2



### COMPRESSION/ROLL 45° - TENSION/ROLL 45°

HH8 Series	Model	-10	-20	-25	-30	-35	-38	-40	-50	-60
1. Max Static	F daN	276	216	16,7	12,9	10,5	8,8	8,2	7,2	5,3
	d mm	5,3	6,7	8,2	9,6	10,2	11,5	11,7	14,9	18,9
2. Max Shock	F daN	73,7	57,5	44,7	34,9	29,2	24,5	22,9	19,5	14,4
	d mm	27	35	41	47	47	52	52	72	94
3. Max Vibration	2a mm	3,0	3,9	4,6	5,2	5,2	5,8	5,8	8,0	10,4
	f Hz	7,8	6,8	6,2	6,0	6,1	5,8	5,8	4,8	4,2
1. Max Static	F daN	276	216	16,7	12,9	10,5	8,8	8,2	7,2	5,3
	d mm	3,7	4,7	5,8	7,1	7,9	8,9	9,2	11,0	13,7
2. Max Shock	F daN	208	157	126	106	102	88,9	66,2	60,2	42,6
	d mm	15	19	24	32	41	48	46	50	60
3. Max Vibration	2a mm	1,7	2,1	2,7	3,5	4,6	5,3	5,2	5,6	6,7
	f Hz	10,7	9,6	8,6	7,7	7,2	6,7	6,8	6,2	5,6



### SHEAR OR ROLL

HH8 Series	Model	-10	-20	-25	-30	-35	-38	-40	-50	-60
1. Max Static	F daN	18,4	14,4	11,1	8,6	7,0	5,9	5,4	4,8	3,6
	d mm	4,4	5,9	7,2	8,4	8,6	9,8	9,9	13,5	17,6
2. Max Shock	F daN	112	81,9	64,1	52,5	48,8	41,4	34,7	28,3	19,8
	d mm	18	23	29	35	41	47	46	56	69
3. Max Vibration	2a mm	2,1	2,6	3,2	3,9	4,6	5,3	5,2	6,2	7,6
	f Hz	8,8	7,8	7,1	6,5	6,2	5,9	5,9	5,2	4,7

1. Max static load (F) with corresponding deflection (d)
2. Max shock load (F) with corresponding deflection (d)
3. Uncoupled resonant frequency (f) under max static loading 1. and max peak to peak sinusoidal vibration input (2a)

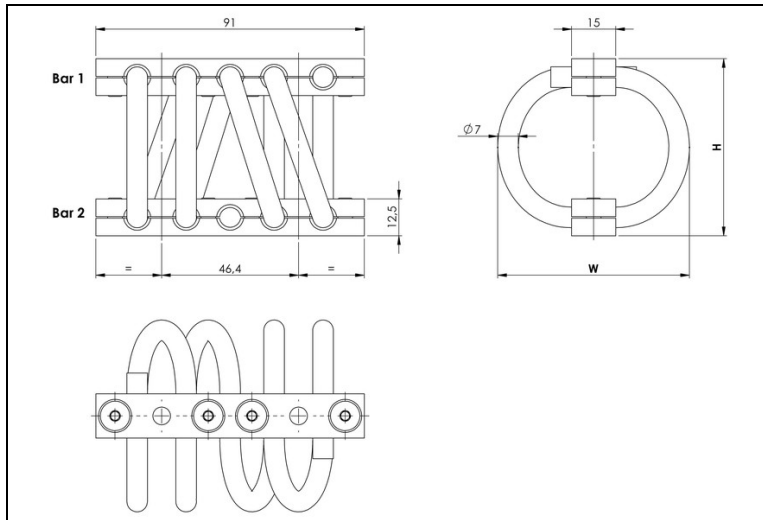
**\*IMPORTANT:** Performance characteristics are given here for reference only. They can be increased under specific conditions. Contact us

### TYPICAL SHOCK/VIBRATION SPECIFICATIONS:

- Air** AIR 7306, MIL-E-5400, MIL-C-172, MIL-STD-810
- Ground Forces** GAM EG13A, SEFT 001, MIL-STD-810, VG 9533
- Marine** GAM EG13C, IT25-21/96-31/15-86, MIL-S-167, MIL-S-901, STANAG 042, BV 043.73, BV 044
- Others** GAM EMB1, GAM EMBT4, DEF STAN 07-55, IEC 571, FINABEL 2C

# WIRE ROPE ISOLATOR

DEFINITION  
**series HH9**



- All metal multidirectional anti-vibration/shock mounts
- Exceptional reliability and long life
- High damping
- No aging
- Corrosion resistant
- Unequalled temperature range : - 180°C to 300°C (-290°F to 570°F)
- Great adaptability/versatility

Specials on request

(material size and number of loops, etc.)

Dimensions are in millimeters. For reference only

SERIES
Materials and finishes (meets RoHS requirements)
<b>HH9</b>
<b>Cable:</b> stainless steel galvanized available: HHG
<b>Retainer bars:</b> aluminium alloy/ SurTec
<b>Screws:</b> alloy steel/zinc plate
<b>Inserts:</b> stainless steel
All stainless steel: HHSS
Other materials on request

MODEL			
	height H (mm)	width W (mm)	weight (kg)
-10	45	56	0,18
-20	51	63	0,19
-25	56	71	0,21
-30	60	80	0,22
-35	60	89	0,23
-38	64	95	0,25
-40	64	100	0,25
-50	79	108	0,28
-60	95	128	0,32

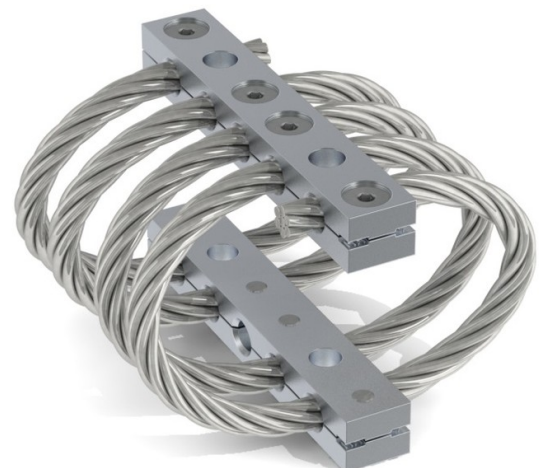
INTERFACES			
fixtures holes D	Bar 1		
	2 through holes $\phi 7$ mm	2 through holes $\phi 7$ mm counter-sunk 90°	2 inserts M6
Bar 2			
2 through holes $\phi 7$ mm	TM2	not standard	not standard
2 through holes $\phi 7$ mm counter-sunk 90°	TCM	CM2	not standard
2 inserts M6	TIM	CIM	IM2

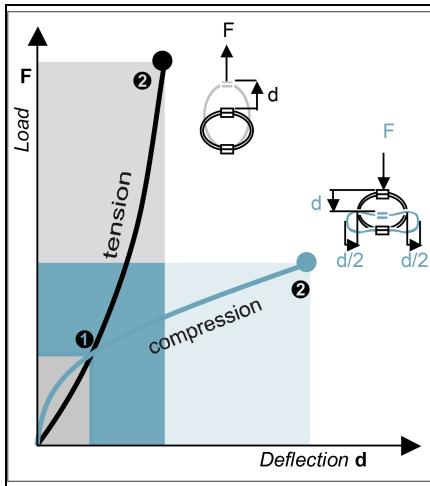
**H H 9 - 1 0 C I M**

SERIE: HH9  
'Half-Helical' mount from the HH9 series

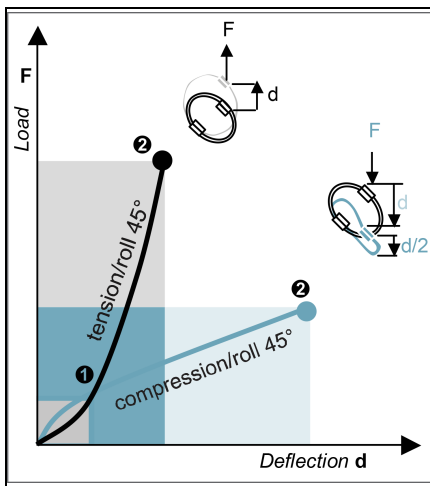
MODEL: -10  
height: 45mm  
width: 56mm  
weight: 0,18kg  
loops: serie standard is 04 loops

INTERFACE: CIM  
2 through holes  $\phi 7$ mm counter-sunk 90° in bar 1,  
2 inserts M6 in bar 2

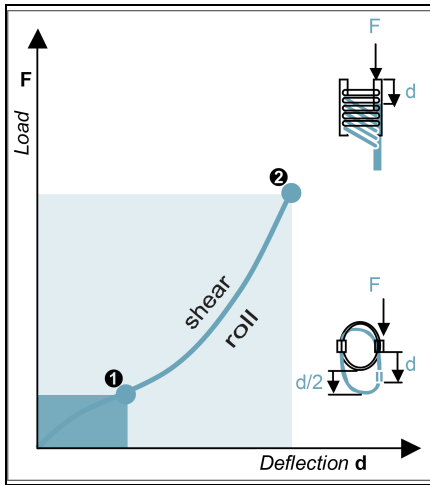




		HH9 Series	Model	-10	-20	-25	-30	-35	-38	-40	-50	-60
1. Max Static	F daN			56,2	43,8	33,7	25,9	20,0	17,6	15,6	14,3	10,4
	d mm			3,3	4,3	5,2	5,8	5,8	6,5	6,5	9,0	11,6
2. Max Shock	F daN			168	131	101	77,8	60,0	53,0	46,8	43,0	31,4
	d mm			18	23	27	31	31	35	35	48	63
3. Max Vibration	2a mm			2,0	2,6	3,1	3,5	3,5	3,9	3,9	5,4	6,9
	f Hz			9,2	8,0	7,4	7,1	7,3	6,9	7,0	5,7	5,0
1. Max Static	F daN			56,2	43,8	33,7	25,9	20,0	17,6	15,6	14,3	10,4
	d mm			2,8	3,5	4,4	5,3	5,8	6,5	6,5	8,4	10,5
2. Max Shock	F daN			619	470	376	315	297	259	171	177	125
	d mm			13	16	20	27	37	41	40	43	53
3. Max Vibration	2a mm			1,4	1,8	2,3	3,0	4,2	4,6	4,5	4,8	5,9
	f Hz			12,2	10,8	9,7	8,7	7,9	7,5	7,4	7,0	6,2



		HH9 Series	Model	-10	-20	-25	-30	-35	-38	-40	-50	-60
1. Max Static	F daN			42,1	32,9	25,3	19,4	15,0	13,2	11,7	10,7	7,8
	d mm			5,2	6,6	8,1	9,5	10,3	11,4	11,7	14,8	18,9
2. Max Shock	F daN			112	87,0	67,5	52,6	41,8	36,8	32,9	29,2	21,2
	d mm			27	35	41	47	47	52	52	72	94
3. Max Vibration	2a mm			3,0	3,9	4,6	5,2	5,2	5,8	5,8	8,0	10,4
	f Hz			7,7	6,7	6,2	5,9	6,1	5,8	5,8	4,8	4,2
1. Max Static	F daN			42,1	32,9	25,3	19,4	15,0	13,2	11,7	10,7	7,8
	d mm			3,6	4,6	5,7	7,0	8,0	8,8	9,3	10,9	13,8
2. Max Shock	F daN			309	234	188	158	150	131	90,1	89,3	62,9
	d mm			15	18	23	31	43	47	46	49	60
3. Max Vibration	2a mm			1,6	2,0	2,6	3,4	4,8	5,2	5,2	5,5	6,7
	f Hz			10,9	9,7	8,7	7,8	7,1	6,8	6,7	6,2	5,6



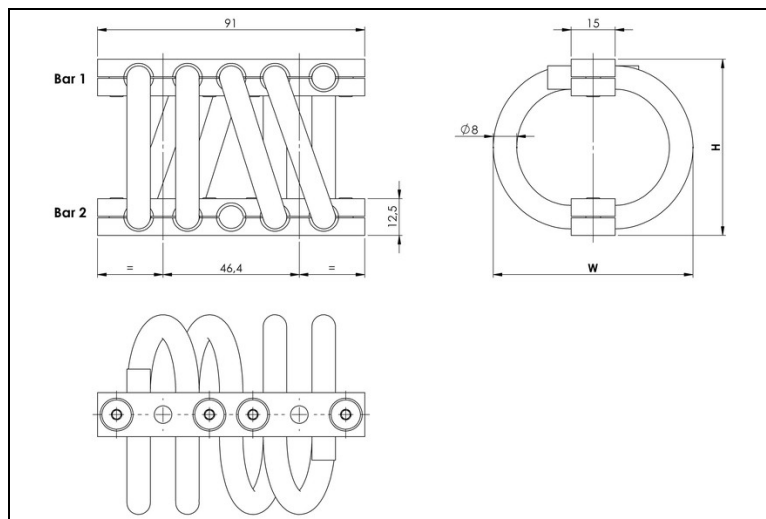
		HH9 Series	Model	-10	-20	-25	-30	-35	-38	-40	-50	-60
1. Max Static	F daN			28,1	21,9	16,9	13,0	10,0	8,8	7,8	7,2	5,2
	d mm			4,4	5,9	7,2	8,4	8,7	9,8	10,0	13,4	17,6
2. Max Shock	F daN			167	121	95,5	78,2	71,2	61,6	48,6	42,1	29,2
	d mm			18	23	28	35	42	47	46	55	69
3. Max Vibration	2a mm			2,0	2,6	3,2	3,9	4,7	5,2	5,2	6,1	7,7
	f Hz			8,9	7,9	7,1	6,6	6,2	5,9	5,9	5,3	4,7

1. Max static load (F) with corresponding deflection (d)
2. Max shock load (F) with corresponding deflection (d)
3. Uncoupled resonant frequency (f) under max static loading 1. and max peak to peak sinusoidal vibration input (2a)

**\*IMPORTANT:** Performance characteristics are given here for reference only. They can be increased under specific conditions. Contact us

## TYPICAL SHOCK/VIBRATION SPECIFICATIONS:

- Air** AIR 7306, MIL-E-5400, MIL-C-172, MIL-STD-810
- Ground Forces** GAM EG13A, SEFT 001, MIL-STD-810, VG 9533
- Marine** GAM EG13C, IT25-21/96-31/15-86, MIL-S-167, MIL-S-901, STANAG 042, BV 043.73, BV 044
- Others** GAM EMB1, GAM EMBT4, DEF STAN 07-55, IEC 571, FINABEL 2C



- All metal multidirectional anti-vibration/shock mounts
- Exceptional reliability and long life
- High damping
- No aging
- Corrosion resistant
- Unequalled temperature range : - 180°C to 300°C (-290°F to 570°F)
- Great adaptability/versatility

Specials on request

(material size and number of loops, etc.)

Dimensions are in millimeters. For reference only

SERIES
Materials and finishes (meets RoHS requirements)
<b>HH10</b>
<b>Cable:</b> stainless steel galvanized available: HHG
<b>Retainer bars:</b> aluminium alloy/ SurTec
<b>Screws:</b> alloy steel/zinc plate
<b>Inserts:</b> stainless steel
All stainless steel: HHSS
Other materials on request

MODEL			
	height H (mm)	width W (mm)	weight (kg)
-10	45	58	0,21
-20	51	65	0,23
-25	56	73	0,25
-30	60	82	0,27
-35	60	91	0,29
-38	64	97	0,30
-40	64	102	0,31
-50	79	110	0,35
-60	95	129	0,40

INTERFACES			
fixtures holes D	Bar 1		
	2 through holes Ø7mm	2 through holes Ø7mm countersunk k 90°	2 inserts M6
Bar 2			
2 through holes Ø7mm	TM2	not standard	not standard
2 through holes Ø7mm countersunk 90°	TCM	CM2	not standard
2 inserts M6	TIM	CIM	IM2

**H H 1 0 - 1 0 C I M**

SERIE: HH10

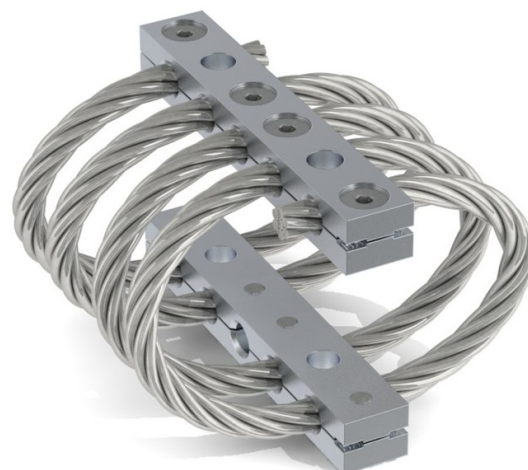
'Half-Helical' mount from the HH10 series

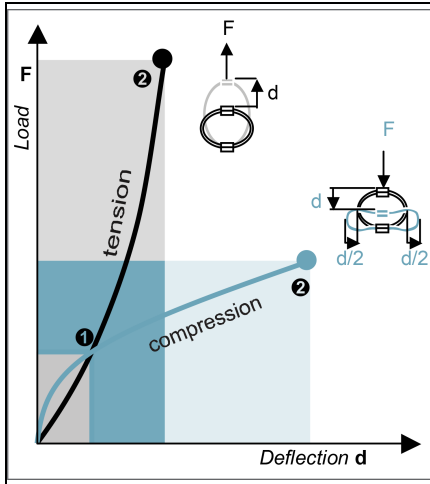
MODEL: -10

height: 45mm  
width: 58mm  
weight: 0,21kg  
loops: serie  
standard is 04 loops

INTERFACE: CIM

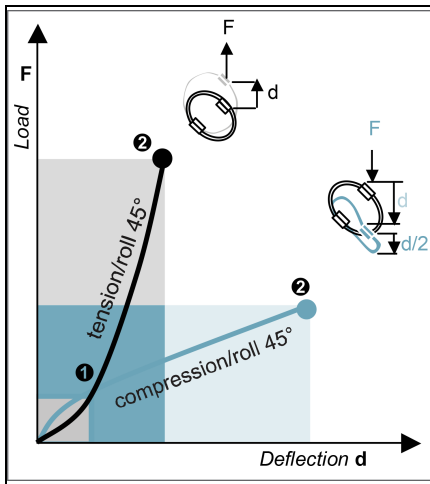
2 through holes Ø7mm  
countersunk 90° in bar 1,  
2 inserts M6 in bar 2





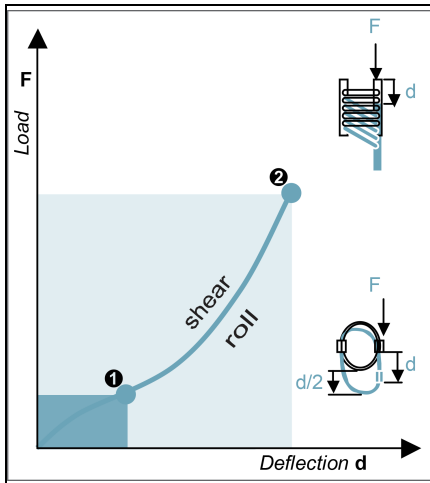
### COMPRESSION AND TENSION

HH10 Series	Model	-10	-20	-25	-30	-35	-38	-40	-50	-60
1. Max Static	F daN	92,1	71,8	55,3	42,5	31,9	28,9	25,0	23,5	17,1
	d mm	3,3	4,3	5,2	5,8	5,8	6,5	6,5	9,0	11,6
2. Max Shock	F daN	276	215	165	127	95,6	86,8	74,9	70,4	51,4
	d mm	18	23	27	31	31	35	35	48	63
3. Max Vibration	2a mm	2,0	2,6	3,1	3,5	3,5	3,9	3,9	5,4	6,9
	f Hz	9,2	8,0	7,4	7,1	7,3	6,9	7,0	5,7	5,0



### COMPRESSION/ROLL 45° - TENSION/ROLL 45°

HH10 Series	Model	-10	-20	-25	-30	-35	-38	-40	-50	-60
1. Max Static	F daN	69,0	53,9	41,5	31,9	23,9	21,7	18,7	17,6	12,8
	d mm	5,2	6,6	8,1	9,5	10,3	11,4	11,8	14,8	18,9
2. Max Shock	F daN	183	142	110	86,2	66,8	60,3	52,8	47,8	34,7
	d mm	27	35	41	47	47	52	52	72	94
3. Max Vibration	2a mm	3,0	3,9	4,6	5,2	5,2	5,8	5,8	8,0	10,4
	f Hz	7,7	6,7	6,2	5,9	6,1	5,8	5,8	4,8	4,2



### SHEAR OR ROLL

HH10 Series	Model	-10	-20	-25	-30	-35	-38	-40	-50	-60
1. Max Static	F daN	46,0	35,9	27,6	21,2	15,9	14,5	12,5	11,7	8,6
	d mm	4,4	5,9	7,2	8,4	8,7	9,8	10,1	13,4	17,6
2. Max Shock	F daN	273	199	156	128	115	100	76,4	69,0	47,9
	d mm	18	23	28	35	43	47	46	55	69
3. Max Vibration	2a mm	2,0	2,6	3,2	3,9	4,8	5,2	5,2	6,1	7,7
	f Hz	8,9	7,9	7,1	6,6	6,2	5,9	5,9	5,3	4,7

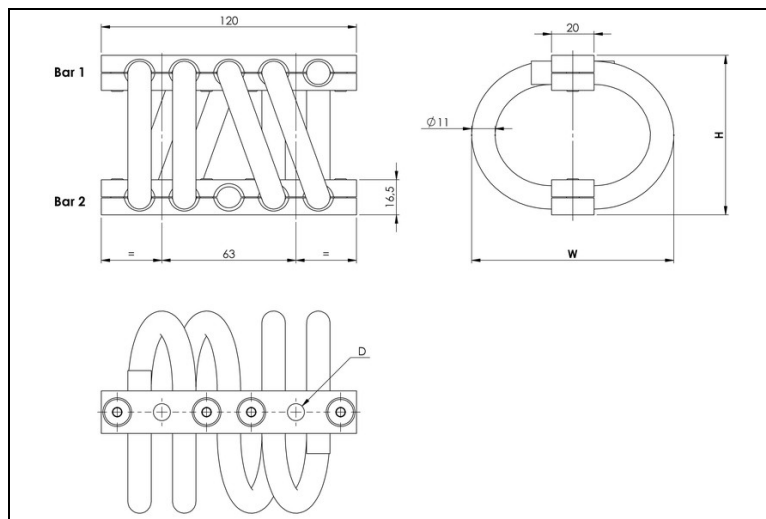
1. Max static load (F) with corresponding deflection (d)
2. Max shock load (F) with corresponding deflection (d)
3. Uncoupled resonant frequency (f) under max static loading 1. and max peak to peak sinusoidal vibration input (2a)

**\*IMPORTANT:** Performance characteristics are given here for reference only. They can be increased under specific conditions. Contact us

## TYPICAL SHOCK/VIBRATION SPECIFICATIONS:

Air	AIR 7306, MIL-E-5400, MIL-C-172, MIL-STD-810
Ground Forces	GAM EG13A, SEFT 001, MIL-STD-810, VG 9533
Marine	GAM EG13C, IT25-21/96-31/15-86, MIL-S-167, MIL-S-901, STANAG 042, BV 043.73, BV 044
Others	GAM EMB1, GAM EMBT4, DEF STAN 07-55, IEC 571, FINABEL 2C





- All metal multidirectional anti-vibration/shock mounts
- Exceptional reliability and long life
- High damping
- No aging
- Corrosion resistant
- Unequalled temperature range : - 180°C to 300°C (-290°F to 570°F)
- Great adaptability/versatility

**Specials on request**

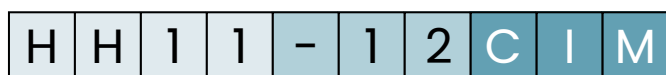
(material size and number of loops, etc.)

*Dimensions are in millimeters. For reference only*

SERIES
Materials and finishes (meets RoHS requirements)
<b>HH11</b>
<b>Cable:</b> stainless steel galvanized available: HHG
<b>Retainer bars:</b> aluminium alloy/ SurTec
<b>Screws:</b> alloy steel/zinc plate
<b>Inserts:</b> stainless steel
All stainless steel: HHSS
Other materials on request

MODEL			
	height H (mm)	width W (mm)	weight (kg)
-12	68	83	0,53
-15	71	87	0,55
-20	74	93	0,58
-30	77	107	0,62
-35	89	111	0,67
-40	105	124	0,76
-50	108	143	0,82
-60	124	146	0,88
-70	134	156	0,94
-80	155	183	1,1

INTERFACES			
fixtures holes D	Bar 1		
	2 through holes ø8,5mm	2 through holes ø8,5mm countersunk 90°	2 inserts M8
Bar 2			
2 through holes ø8,5mm	TM2	not standard	not standard
2 through holes ø8,5mm countersunk 90°	TCM	CM2	not standard
2 inserts M8	TIM	CIM	IM2

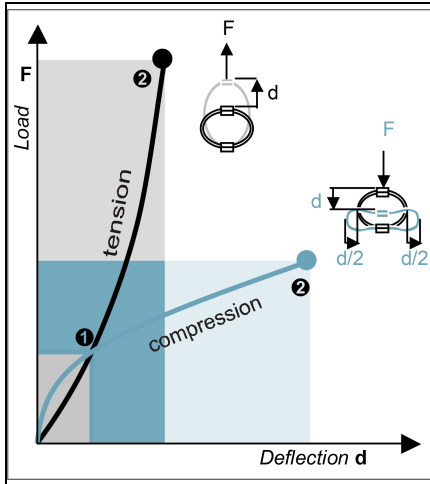


**SERIE:** HH11  
'Half-Helical' mount from the HH11 series

**MODEL:** -12  
height: 68mm  
width: 83mm  
weight: 0,53kg  
loops: serie standard is 04 loops

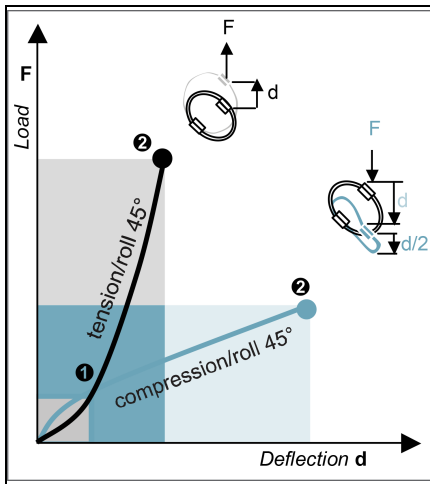
**INTERFACE:** CIM  
2 through holes ø8,5mm countersunk 90° in bar 1,  
2 inserts M8 in bar 2





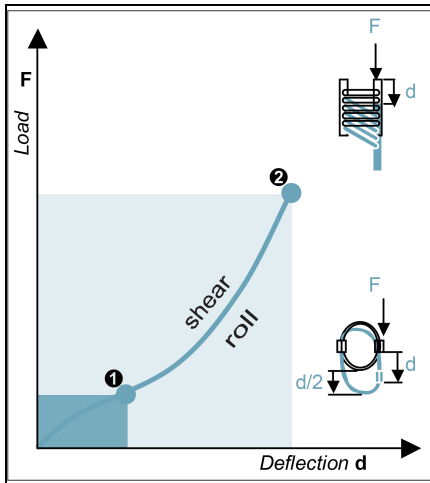
### COMPRESSION AND TENSION

HH11 Series	Model	-12	-15	-20	-30	-35	-40	-50	-60	-70	-80
1. Max Static	F daN	176	158	135	96,8	93,6	75,6	55,3	54,6	48,1	35,3
	d mm	5,8	6,3	6,8	7,3	9,3	12,0	12,4	15,1	16,8	20,3
2. Max Shock	F daN	528	475	407	290	280	226	165	163	144	105
	d mm	31	34	36	39	50	64	67	81	90	109
3. Max Vibration	2a mm	3,5	3,8	4,1	4,4	5,5	7,1	7,4	9,0	10,0	12,1
	f Hz	6,7	6,4	6,3	6,4	5,4	4,6	4,8	4,1	3,8	3,5
1. Max Static	F daN	176	158	135	96,8	93,6	75,6	55,3	54,6	48,1	35,3
	d mm	4,4	4,8	5,4	6,9	7,3	8,6	10,8	10,8	11,8	14,7
2. Max Shock	F daN	1755	1591	1426	1225	972	724	632	523	455	342
	d mm	18	20	24	36	32	35	52	45	48	62
3. Max Vibration	2a mm	2,1	2,3	2,7	4,0	3,6	3,9	5,8	5,0	5,4	6,8
	f Hz	9,8	9,3	8,7	7,6	7,5	7,0	6,2	6,2	5,9	5,3



### COMPRESSION/ROLL 45° - TENSION/ROLL 45°

HH11 Series	Model	-12	-15	-20	-30	-35	-40	-50	-60	-70	-80
1. Max Static	F daN	132	118	101	72,6	70,2	56,7	41,5	41,0	36,0	26,5
	d mm	8,5	9,3	10,3	12,2	14,0	17,0	19,8	21,6	23,6	29,1
2. Max Shock	F daN	345	310	268	197	184	147	111	106	93,2	68,8
	d mm	47	51	55	59	75	97	101	122	136	164
3. Max Vibration	2a mm	5,2	5,6	6,1	6,5	8,3	10,7	11,1	13,5	15,0	18,1
	f Hz	5,7	5,5	5,3	5,3	4,5	3,9	4,0	3,5	3,3	3,0
1. Max Static	F daN	132	118	101	72,6	70,2	56,7	41,5	41,0	36,0	26,5
	d mm	5,8	6,3	7,2	9,0	9,7	11,3	14,2	14,4	15,7	19,5
2. Max Shock	F daN	872	791	711	617	484	359	316	259	225	169
	d mm	21	23	28	42	37	40	60	51	55	70
3. Max Vibration	2a mm	2,4	2,6	3,1	4,6	4,1	4,5	6,6	5,7	6,2	7,8
	f Hz	8,7	8,3	7,8	6,8	6,7	6,2	5,5	5,5	5,3	4,7



### SHEAR OR ROLL

HH11 Series	Model	-12	-15	-20	-30	-35	-40	-50	-60	-70	-80
1. Max Static	F daN	88,1	79,2	67,8	48,4	46,8	37,8	27,6	27,3	24,0	17,6
	d mm	8,0	8,8	9,6	10,5	13,4	17,6	18,5	22,6	25,2	30,7
2. Max Shock	F daN	452	406	361	304	238	172	150	122	105	78,8
	d mm	29	31	36	46	48	57	71	73	80	99
3. Max Vibration	2a mm	3,2	3,5	4,0	5,1	5,4	6,4	7,8	8,1	8,8	10,9
	f Hz	6,9	6,6	6,3	5,8	5,4	4,9	4,6	4,4	4,1	3,8

1. Max static load (F) with corresponding deflection (d)
2. Max shock load (F) with corresponding deflection (d)
3. Uncoupled resonant frequency (f) under max static loading 1. and max peak to peak sinusoidal vibration input (2a)

**\*IMPORTANT:** Performance characteristics are given here for reference only. They can be increased under specific conditions. Contact us

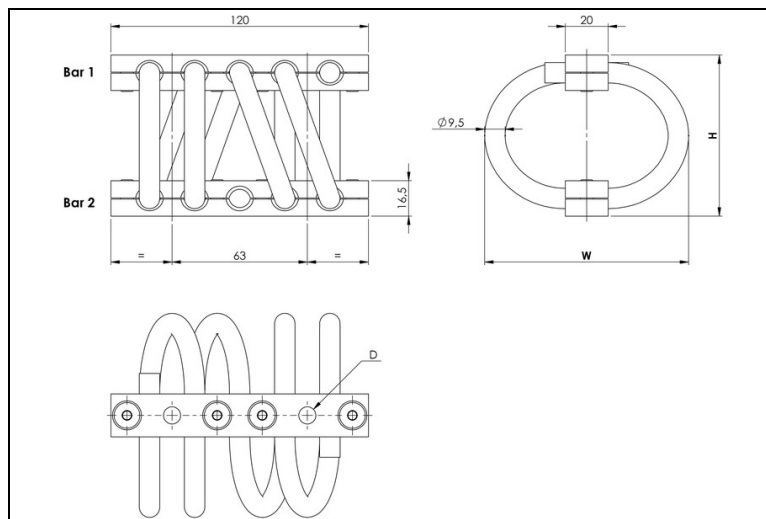
### TYPICAL SHOCK/VIBRATION SPECIFICATIONS:

- Air** AIR 7306, MIL-E-5400, MIL-C-172, MIL-STD-810
- Ground Forces** GAM EG13A, SEFT 001, MIL-STD-810, VG 9533
- Marine** GAM EG13C, IT25-21/96-31/15-86, MIL-S-167, MIL-S-901, STANAG 042, BV 043.73, BV 044
- Others** GAM EMB1, GAM EMBT4, DEF STAN 07-55, IEC 571, FINABEL 2C



# WIRE ROPE ISOLATOR

DEFINITION  
**series HH13**



- All metal multidirectional anti-vibration/shock mounts
- Exceptional reliability and long life
- High damping
- No aging
- Corrosion resistant
- Unequalled temperature range : - 180°C to 300°C (-290°F to 570°F)
- Great adaptability/versatility

Specials on request

(material size and number of loops, etc.)

Dimensions are in millimeters. For reference only

SERIES
Materials and finishes (meets RoHS requirements)
<b>HH13</b>
<b>Cable:</b> stainless steel galvanized available: HHG
<b>Retainer bars:</b> aluminium alloy/ SurTec
<b>Screws:</b> alloy steel/zinc plate
<b>Inserts:</b> stainless steel
All stainless steel: HHSS
Other materials on request

MODEL			
	height H (mm)	width W (mm)	weight (kg)
-12	68	80	0,45
-15	71	84	0,46
-20	74	90	0,48
-30	77	104	0,52
-35	89	108	0,55
-40	105	121	0,62
-50	108	140	0,66
-60	124	143	0,70
-70	134	153	0,75
-80	155	180	0,85
-90	166	186	0,89

INTERFACES			
fixtures holes D	Bar 1		
	2 through holes ø8,5mm	2 through holes ø8,5mm countersunk k 90°	2 inserts M8
Bar 2			
2 through holes ø8,5mm	TM2	not standard	not standard
2 through holes ø8,5mm countersunk 90°	TCM	CM2	not standard
2 inserts M8	TIM	CIM	IM2

**H H 1 3 - 1 2 C I M**

SERIE: HH13

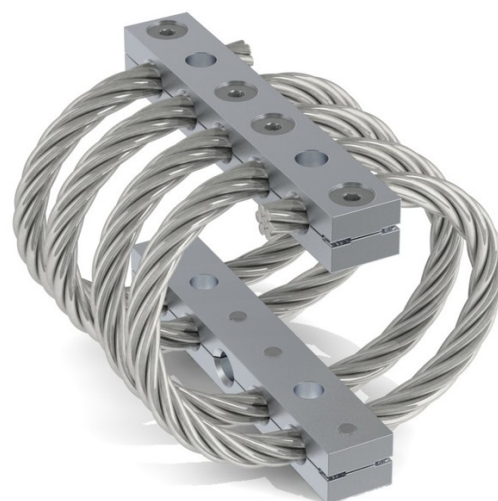
'Half-Helical' mount from the HH13 series

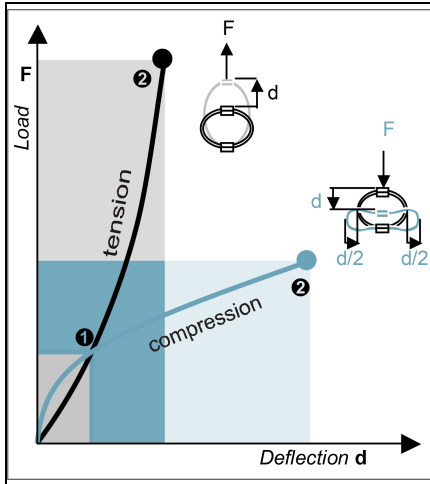
MODEL: -12

height: 68mm  
width: 80mm  
weight: 0,45kg  
loops: serie  
standard is 04 loops

INTERFACE: CIM

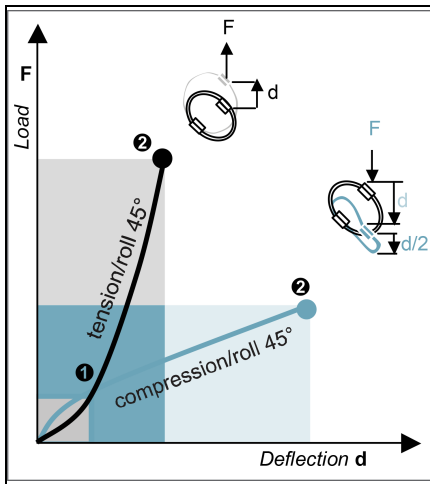
2 through holes ø8,5mm  
countersunk 90° in bar 1,  
2 inserts M8 in bar 2





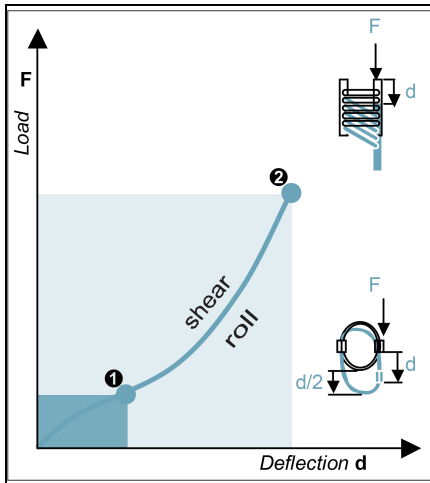
### COMPRESSION AND TENSION

HH13 Series	Model	-12	-15	-20	-30	-35	-40	-50	-60	-70	-80	-90
1. Max Static	F daN	95,8	86,7	74,0	52,6	50,7	40,8	29,7	29,3	25,8	18,9	17,8
	d mm	5,8	6,3	6,8	7,3	9,3	12,0	12,4	15,1	16,8	20,3	21,7
2. Max Shock	F daN	287	260	221	157	152	122	89,2	88,0	77,3	56,6	53,5
	d mm	31	34	36	39	50	64	67	81	90	109	119
3. Max Vibration	2a mm	3,5	3,8	4,1	4,4	5,5	7,1	7,4	9,0	10,0	12,1	13,2
	f Hz	6,6	6,4	6,2	6,3	5,3	4,5	4,8	4,0	3,8	3,5	3,3
1. Max Static	F daN	95,8	86,7	74,0	52,6	50,7	40,8	29,7	29,3	25,8	18,9	17,8
	d mm	4,2	4,6	5,3	6,8	7,2	8,4	10,7	10,7	11,7	14,6	14,9
2. Max Shock	F daN	928	848	759	651	517	385	335	278	241	181	163
	d mm	17	19	23	35	31	34	51	44	47	60	60
3. Max Vibration	2a mm	2,0	2,2	2,6	3,9	3,5	3,8	5,6	4,9	5,3	6,7	6,6
	f Hz	9,9	9,4	8,8	7,7	7,6	7,0	6,2	6,2	6,0	5,3	5,3



### COMPRESSION/ROLL 45° - TENSION/ROLL 45°

HH13 Series	Model	-12	-15	-20	-30	-35	-40	-50	-60	-70	-80	-90
1. Max Static	F daN	71,8	65,0	55,5	39,4	38,0	30,6	22,3	22,0	19,3	14,2	13,4
	d mm	8,4	9,1	10,2	12,1	13,8	16,8	19,7	21,4	23,5	28,9	30,4
2. Max Shock	F daN	186	169	145	106	99,8	79,1	59,6	56,9	49,9	36,7	34,4
	d mm	47	51	55	59	75	97	101	122	136	164	179
3. Max Vibration	2a mm	5,2	5,6	6,1	6,5	8,3	10,7	11,1	13,5	15,0	18,1	19,8
	f Hz	5,6	5,4	5,3	5,3	4,5	3,9	4,0	3,5	3,3	3,0	2,8
1. Max Static	F daN	71,8	65,0	55,5	39,4	38,0	30,6	22,3	22,0	19,3	14,2	13,4
	d mm	5,6	6,1	7,0	8,9	9,5	11,1	14,0	14,2	15,5	19,3	19,8
2. Max Shock	F daN	460	421	378	327	257	190	167	137	119	89,9	81,0
	d mm	20	22	26	40	36	39	58	50	54	69	68
3. Max Vibration	2a mm	2,2	2,5	3,0	4,5	4,0	4,4	6,5	5,6	6,0	7,6	7,6
	f Hz	8,8	8,4	7,9	6,9	6,8	6,3	5,5	5,6	5,3	4,8	4,7



### SHEAR OR ROLL

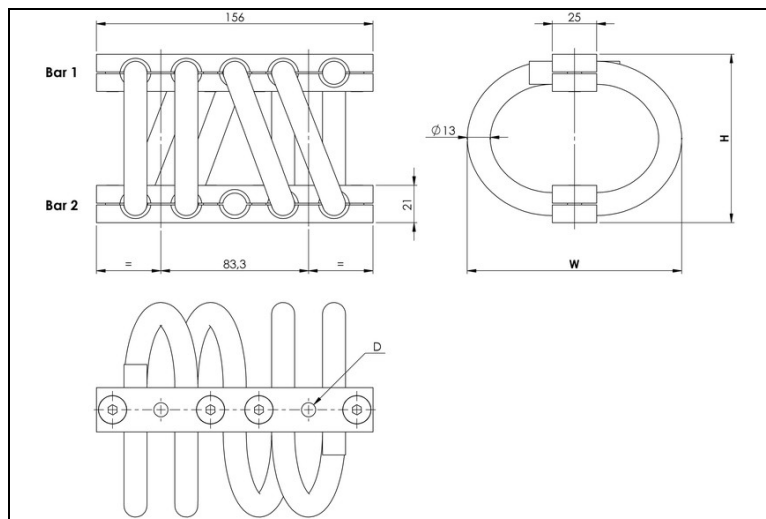
HH13 Series	Model	-12	-15	-20	-30	-35	-40	-50	-60	-70	-80	-90
1. Max Static	F daN	479	43,3	370	26,3	25,3	20,4	14,9	14,7	12,9	9,4	8,9
	d mm	8,0	8,8	9,5	10,5	13,4	17,6	18,5	22,6	25,3	30,7	33,7
2. Max Shock	F daN	238	216	192	161	126	91,6	79,9	65,0	56,0	41,7	37,3
	d mm	28	31	35	45	47	57	70	72	79	98	102
3. Max Vibration	2a mm	3,1	3,4	3,9	5,0	5,3	6,3	7,8	8,0	8,8	10,8	11,3
	f Hz	7,0	6,7	6,3	5,8	5,4	4,9	4,6	4,4	4,2	3,8	3,6

1. Max static load (F) with corresponding deflection (d)
2. Max shock load (F) with corresponding deflection (d)
3. Uncoupled resonant frequency (f) under max static loading 1. and max peak to peak sinusoidal vibration input (2a)

**\*IMPORTANT:** Performance characteristics are given here for reference only. They can be increased under specific conditions. Contact us

## TYPICAL SHOCK/VIBRATION SPECIFICATIONS:

Air	AIR 7306, MIL-E-5400, MIL-C-172, MIL-STD-810
Ground Forces	GAM EG13A, SEFT 001, MIL-STD-810, VG 9533
Marine	GAM EG13C, IT25-21/96-31/15-86, MIL-S-167, MIL-S-901, STANAG 042, BV 043.73, BV 044
Others	GAM EMB1, GAM EMBT4, DEF STAN 07-55, IEC 571, FINABEL 2C



- All metal multidirectional anti-vibration/shock mounts
- Exceptional reliability and long life
- High damping
- No aging
- Corrosion resistant
- Unequalled temperature range : - 180°C to 300°C (-290°F to 570°F)
- Great adaptability/versatility

Specials on request

(material size and number of loops, etc.)

Dimensions are in millimeters. For reference only

SERIES
Materials and finishes (meets RoHS requirements)
<b>HH14</b>
<b>Cable:</b> stainless steel galvanized available: HHG
<b>Retainer bars:</b> aluminium alloy/ SurTec
<b>Screws:</b> alloy steel/zinc plate
<b>Inserts:</b> stainless steel
All stainless steel: HHSS
Other materials on request

MODEL			
	height H (mm)	width W (mm)	weight (kg)
-12	76	92	0,95
-15	83	102	1,0
-17	89	105	1,1
-20	95	121	1,2
-30	108	133	1,3
-40	124	143	1,4
-50	137	156	1,5
-60	155	180	1,7
-70	166	186	1,7
-80	175	210	1,9

INTERFACES			
fixtures holes D	Bar 1		
	2 through holes ø8,8mm	2 through holes ø8,8mm countersunk k 90°	2 inserts M8
Bar 2			
2 through holes ø8,8mm	TM2	not standard	not standard
2 through holes ø8,8mm countersunk 90°	TCM	CM2	not standard
2 inserts M8	TIM	CIM	IM2

**H H 1 4 - 1 2 C I M**

SERIE: HH14

'Half-Helical' mount from the HH14 series

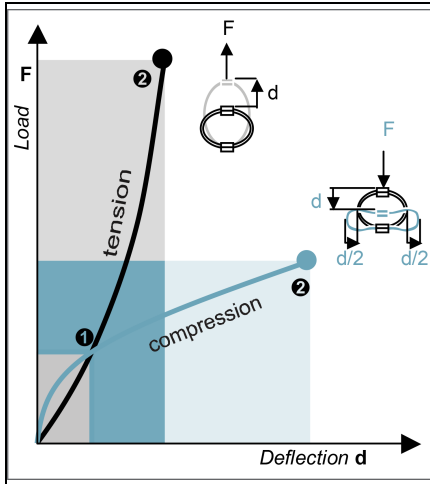
MODEL: -12

height: 76mm  
width: 92mm  
weight: 0,95kg  
loops: serie  
standard is 04 loops

INTERFACE: CIM

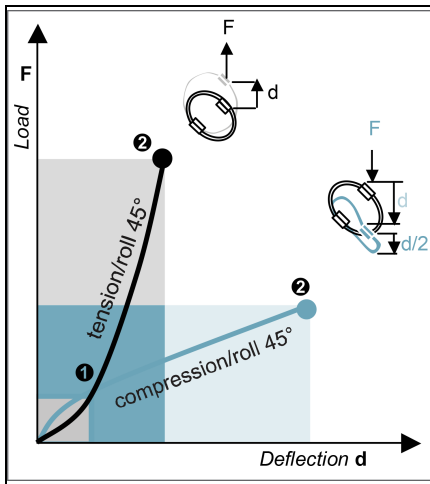
2 through holes ø8,8mm  
countersunk 90° in bar 1,  
2 inserts M8 in bar 2





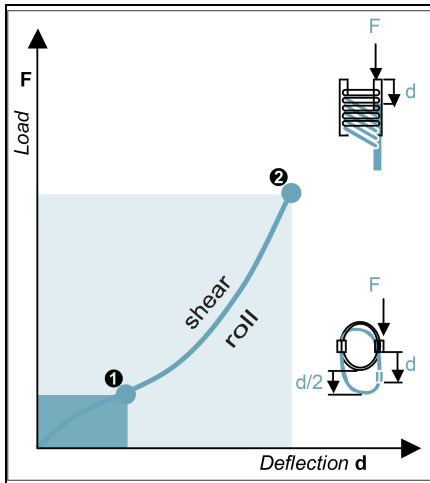
### COMPRESSION AND TENSION

HH14 Series	Model	-12	-15	-17	-20	-30	-40	-50	-60	-70	-80
1. Max Static	F daN	258	206	194	140	116	102	85,9	64,4	60,7	476
	d mm	5,8	70	8,0	9,0	11,1	13,8	15,7	18,9	20,1	22,2
2. Max Shock	F daN	775	618	583	421	350	306	257	193	182	142
	d mm	31	37	43	48	60	74	86	102	112	120
3. Max Vibration	2a mm	3,5	4,2	4,8	5,4	6,6	8,2	9,5	11,3	12,4	13,3
	f Hz	6,7	6,2	5,6	5,6	4,9	4,2	3,9	3,6	3,4	3,4
1. Max Static	F daN	258	206	194	140	116	102	85,9	64,4	60,7	476
	d mm	4,4	5,4	5,7	7,4	8,7	9,5	10,8	13,4	13,8	16,7
2. Max Shock	F daN	2573	2112	1852	1533	1200	952	788	610	550	472
	d mm	18	23	23	34	38	38	43	55	54	71
3. Max Vibration	2a mm	2,1	2,6	2,6	3,8	4,2	4,3	4,8	6,1	6,0	7,9
	f Hz	9,7	8,7	8,6	7,4	6,9	6,6	6,2	5,6	5,5	5,0



### COMPRESSION/ROLL 45° - TENSION/ROLL 45°

HH14 Series	Model	-12	-15	-17	-20	-30	-40	-50	-60	-70	-80
1. Max Static	F daN	193	154	145	105	87,6	76,7	64,4	48,3	45,6	35,7
	d mm	8,5	10,4	11,3	13,9	16,7	19,2	22,0	26,7	28,2	32,6
2. Max Shock	F daN	506	406	377	280	230	197	165	124	116	93,1
	d mm	47	56	64	72	90	112	129	153	168	180
3. Max Vibration	2a mm	5,2	6,2	7,1	8,0	10,0	12,3	14,3	16,9	18,6	19,9
	f Hz	5,7	5,2	4,8	4,7	4,1	3,6	3,3	3,1	2,9	2,9
1. Max Static	F daN	193	154	145	105	87,6	76,7	64,4	48,3	45,6	35,7
	d mm	5,8	7,1	7,5	9,8	11,4	12,6	14,3	17,7	18,3	22,0
2. Max Shock	F daN	1278	1051	917	766	597	471	389	302	271	234
	d mm	21	27	26	39	43	44	49	63	62	82
3. Max Vibration	2a mm	2,4	3,0	3,0	4,4	4,8	4,9	5,5	7,0	6,9	9,0
	f Hz	8,7	7,8	7,6	6,6	6,2	5,9	5,5	5,0	4,9	4,4



### SHEAR OR ROLL

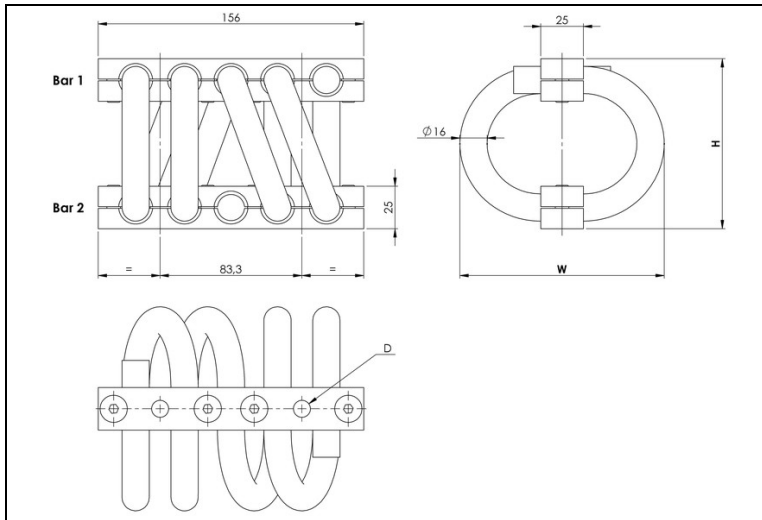
HH14 Series	Model	-12	-15	-17	-20	-30	-40	-50	-60	-70	-80
1. Max Static	F daN	129	103	97,2	70,3	58,4	51,1	42,9	32,2	30,4	23,8
	d mm	7,8	9,6	11,1	12,7	16,0	20,2	23,7	28,3	31,3	33,6
2. Max Shock	F daN	685	548	469	385	294	227	185	142	126	109
	d mm	29	36	38	49	57	65	74	90	95	111
3. Max Vibration	2a mm	3,2	4,0	4,2	5,4	6,3	7,2	8,2	10,0	10,5	12,3
	f Hz	6,9	6,3	6,0	5,4	5,0	4,6	4,3	3,9	3,8	3,5

1. Max static load (F) with corresponding deflection (d)
2. Max shock load (F) with corresponding deflection (d)
3. Uncoupled resonant frequency (f) under max static loading 1. and max peak to peak sinusoidal vibration input (2a)

**\*IMPORTANT:** Performance characteristics are given here for reference only. They can be increased under specific conditions. Contact us

### TYPICAL SHOCK/VIBRATION SPECIFICATIONS:

- Air** AIR 7306, MIL-E-5400, MIL-C-172, MIL-STD-810
- Ground Forces** GAM EG13A, SEFT 001, MIL-STD-810, VG 9533
- Marine** GAM EG13C, IT25-21/96-31/15-86, MIL-S-167, MIL-S-901, STANAG 042, BV 043.73, BV 044
- Others** GAM EMB1, GAM EMBT4, DEF STAN 07-55, IEC 571, FINABEL 2C



- All metal multidirectional anti-vibration/shock mounts
- Exceptional reliability and long life
- High damping
- No aging
- Corrosion resistant
- Unequalled temperature range : - 180°C to 300°C (-290°F to 570°F)
- Great adaptability/versatility

Specials on request

(material size and number of loops, etc.)

Dimensions are in millimeters. For reference only

SERIES
Materials and finishes (meets RoHS requirements)
<b>HH15</b>
<b>Cable:</b> stainless steel galvanized available: HHG
<b>Retainer bars:</b> aluminium alloy/ SurTec
<b>Screws:</b> alloy steel/zinc plate
<b>Inserts:</b> stainless steel
All stainless steel: HHSS
Other materials on request

MODEL			
	height H (mm)	width W (mm)	weight (kg)
-12	87	102	1,4
-15	94	112	1,5
-17	98	120	1,6
-20	107	135	1,7
-30	117	152	1,9
-40	125	165	2,1
-50	135	178	2,3
-60	146	185	2,3

INTERFACES			
fixtures holes D	Bar 1		
	2 through holes $\phi 10,8\text{mm}$	2 through holes $\phi 10,8\text{mm}$ countersunk $90^\circ$	2 inserts M10
Bar 2			
2 through holes $\phi 10,8\text{mm}$	TM2	not standard	not standard
2 through holes $\phi 10,8\text{mm}$ countersunk $90^\circ$	TCM	CM2	not standard
2 inserts M10	TIM	CIM	IM2

**H H 1 5 - 1 2 C I M**

SERIE: HH15

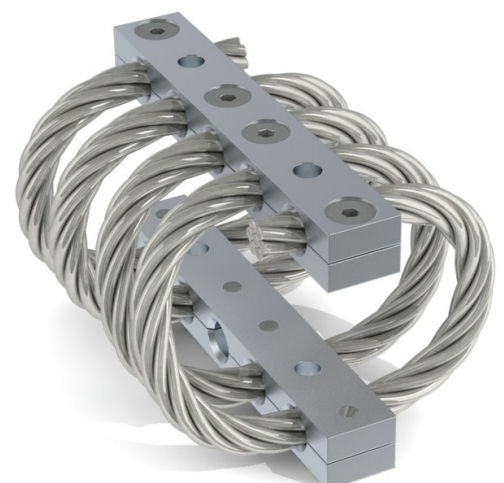
'Half-Helical' mount from the HH15 series

MODEL: -12

height: 87mm  
width: 102mm  
weight: 1,4kg  
loops: serie  
standard is 04 loops

INTERFACE: CIM

2 through holes  $\phi 10,8\text{mm}$   
countersunk  $90^\circ$  in bar 1,  
2 inserts M10 in bar 2



		COMPRESSION AND TENSION								
		HH15 Series	Model	-12	-15	-17	-20	-30	-40	-50
1. Max Static	F daN	439	360	307	238	186	157	136	128	
	d mm	6,1	7,3	8,0	9,5	11,1	12,4	14,1	15,9	
2. Max Shock	F daN	1319	1080	923	716	558	472	408	384	
	d mm	33	39	43	51	60	67	76	86	
3. Max Vibration	2a mm	3,7	4,4	4,8	5,6	6,6	7,4	8,4	9,5	
	f Hz	6,6	6,1	5,9	5,5	5,1	4,8	4,5	4,2	
1. Max Static	F daN	439	360	307	238	186	157	136	128	
	d mm	4,8	5,9	6,7	8,3	10,1	11,5	12,9	13,7	
2. Max Shock	F daN	4562	3811	3409	2760	2240	1933	1652	1446	
	d mm	21	26	31	40	51	59	66	65	
3. Max Vibration	2a mm	2,4	2,9	3,5	4,5	5,7	6,6	7,3	7,2	
	f Hz	9,2	8,4	7,8	7,0	6,3	5,9	5,6	5,5	

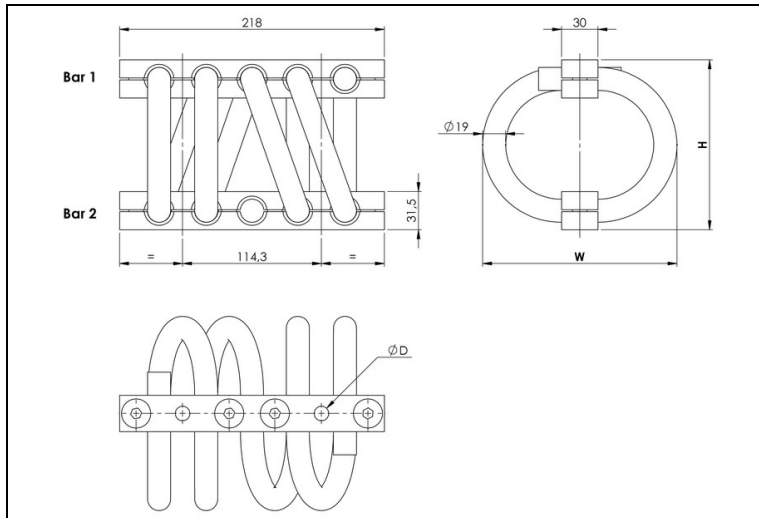
		COMPRESSION/ROLL 45° - TENSION/ROLL 45°								
		HH15 Series	Model	-12	-15	-17	-20	-30	-40	-50
1. Max Static	F daN	329	270	230	179	139	118	102	96,2	
	d mm	9,2	11,1	12,5	15,2	18,1	20,5	23,1	25,2	
2. Max Shock	F daN	868	713	614	480	377	320	276	257	
	d mm	49	59	64	76	90	101	114	129	
3. Max Vibration	2a mm	5,5	6,5	7,1	8,5	10,0	11,1	12,6	14,3	
	f Hz	5,6	5,1	5,0	4,6	4,3	4,1	3,8	3,5	
1. Max Static	F daN	329	270	230	179	139	118	102	96,2	
	d mm	6,4	7,7	8,8	10,9	13,2	15,0	16,9	17,9	
2. Max Shock	F daN	2272	1901	1705	1383	1125	972	830	723	
	d mm	24	30	36	46	58	68	75	75	
3. Max Vibration	2a mm	2,7	3,4	4,0	5,1	6,5	7,5	8,3	8,2	
	f Hz	8,3	7,5	7,0	6,3	5,7	5,3	5,0	4,9	

		SHEAR OR ROLL								
		HH15 Series	Model	-12	-15	-17	-20	-30	-40	-50
1. Max Static	F daN	219	180	153	119	93,1	78,8	68,1	64,2	
	d mm	8,1	9,8	10,9	13,2	15,9	18,1	20,7	23,4	
2. Max Shock	F daN	1246	1013	894	705	559	475	401	349	
	d mm	32	38	44	54	66	76	85	90	
3. Max Vibration	2a mm	3,5	4,3	4,9	6,0	7,4	8,4	9,4	9,9	
	f Hz	6,7	6,1	5,7	5,2	4,8	4,5	4,2	4,0	
<ol style="list-style-type: none"> <li>1. Max static load (F) with corresponding deflection (d)</li> <li>2. Max shock load (F) with corresponding deflection (d)</li> <li>3. Uncoupled resonant frequency (f) under max static loading 1. and max peak to peak sinusoidal vibration input (2a)</li> </ol> <p><b>*IMPORTANT:</b> Performance characteristics are given here for reference only. They can be increased under specific conditions. Contact us</p>										

## TYPICAL SHOCK/VIBRATION SPECIFICATIONS:

Air	AIR 7306, MIL-E-5400, MIL-C-172, MIL-STD-810
Ground Forces	GAM EG13A, SEFT 001, MIL-STD-810, VG 9533
Marine	GAM EG13C, IT25-21/96-31/15-86, MIL-S-167, MIL-S-901, STANAG 042, BV 043.73, BV 044
Others	GAM EMB1, GAM EMBT4, DEF STAN 07-55, IEC 571, FINABEL 2C





- All metal multidirectional anti-vibration/shock mounts
- Exceptional reliability and long life
- High damping
- No aging
- Corrosion resistant
- Unequalled temperature range : - 180°C to 300°C (-290°F to 570°F)
- Great adaptability/versatility

Specials on request

(material size and number of loops, etc.)

Dimensions are in millimeters. For reference only

SERIES
Materials and finishes (meets RoHS requirements)
<b>HH16</b>
<b>Cable:</b> stainless steel galvanized available: HHG
<b>Retainer bars:</b> aluminium alloy/ SurTec
<b>Screws:</b> alloy steel/zinc plate
<b>Inserts:</b> stainless steel
All stainless steel: HHSS
Other materials on request

MODEL			
	height H (mm)	width W (mm)	weight (kg)
-15	98	115	2,5
-17	104	125	2,6
-20	110	135	2,8
-25	117	145	2,9
-30	125	160	3,1
-40	135	175	3,4
-50	145	185	3,6
-60	160	200	3,8
-70	175	215	4,1

INTERFACES			
fixtures holes D	Bar 1		
	2 through holes ø13,5mm	2 through holes ø13,5mm countersunk k 90°	2 inserts M12
Bar 2			
2 through holes ø13,5mm	TM2	not standard	not standard
2 through holes ø13,5 mm countersunk 90°	TCM	CM2	not standard
2 inserts M12	TIM	CIM	IM2

**H H 1 6 - 1 5 C I M**

SERIE: HH16

'Half-Helical' mount from the HH16 series

MODEL: -15

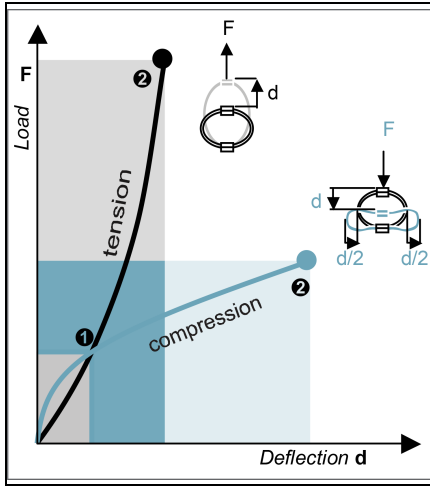
height: 98mm  
width: 115mm  
weight: 2,5kg  
loops: serie  
standard is 04 loops

INTERFACE: CIM

2 through holes ø13,5mm  
countersunk 90° in bar 1,  
2 inserts M12 in bar 2

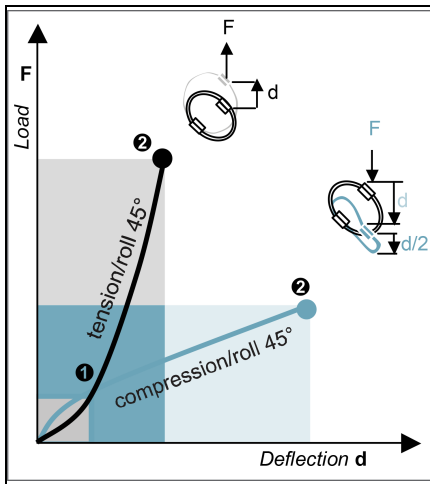






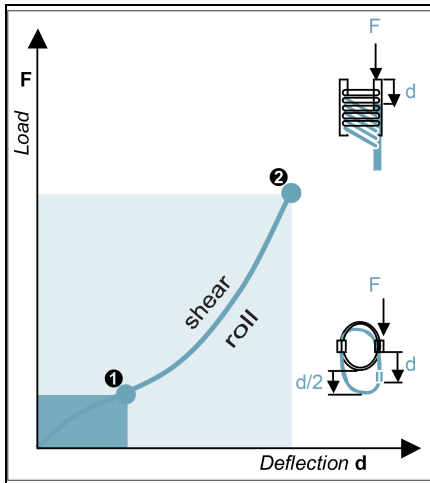
### COMPRESSION AND TENSION

HH16 Series	Model	-15	-17	-20	-25	-30	-40	-50	-60	-70
1. Max Static	F daN	617	512	433	374	303	253	229	199	174
	d mm	5,8	6,8	7,8	9,0	10,3	12,0	13,6	16,1	18,6
2. Max Shock	F daN	1851	1538	1301	1123	909	759	687	597	522
	d mm	31	36	42	48	55	64	73	87	100
3. Max Vibration	2a mm	3,5	4,1	4,6	5,4	6,1	7,1	8,1	9,6	11,1
	f Hz	7,0	6,5	6,1	5,7	5,3	5,0	4,6	4,2	3,9
1. Max Static	F daN	617	512	433	374	303	253	229	199	174
	d mm	5,0	6,0	7,1	8,1	9,7	11,3	12,4	14,0	15,6
2. Max Shock	F daN	6967	5967	5175	4472	3788	3180	2757	2275	1918
	d mm	24	29	35	40	50	59	62	68	73
3. Max Vibration	2a mm	2,6	3,3	3,9	4,5	5,6	6,6	6,9	7,5	8,1
	f Hz	9,1	8,2	7,6	7,1	6,5	6,0	5,7	5,4	5,1



### COMPRESSION/ROLL 45° - TENSION/ROLL 45°

HH16 Series	Model	-15	-17	-20	-25	-30	-40	-50	-60	-70
1. Max Static	F daN	462	384	325	280	227	189	171	149	130
	d mm	9,2	10,9	12,7	14,6	17,1	19,9	22,2	25,6	29,0
2. Max Shock	F daN	1237	1033	877	757	617	516	464	399	347
	d mm	47	55	63	72	83	97	110	130	151
3. Max Vibration	2a mm	5,2	6,1	7,0	8,0	9,2	10,7	12,2	14,4	16,6
	f Hz	5,9	5,4	5,1	4,8	4,5	4,2	3,9	3,5	3,2
1. Max Static	F daN	462	384	325	280	227	189	171	149	130
	d mm	6,5	7,9	9,2	10,6	12,6	14,7	16,2	18,4	20,5
2. Max Shock	F daN	3488	2992	2598	2245	1907	1601	1385	1140	959
	d mm	27	33	40	46	58	68	71	77	83
3. Max Vibration	2a mm	3,0	3,7	4,5	5,2	6,4	7,5	7,9	8,6	9,2
	f Hz	8,1	7,4	6,8	6,3	5,8	5,4	5,1	4,8	4,6



### SHEAR OR ROLL

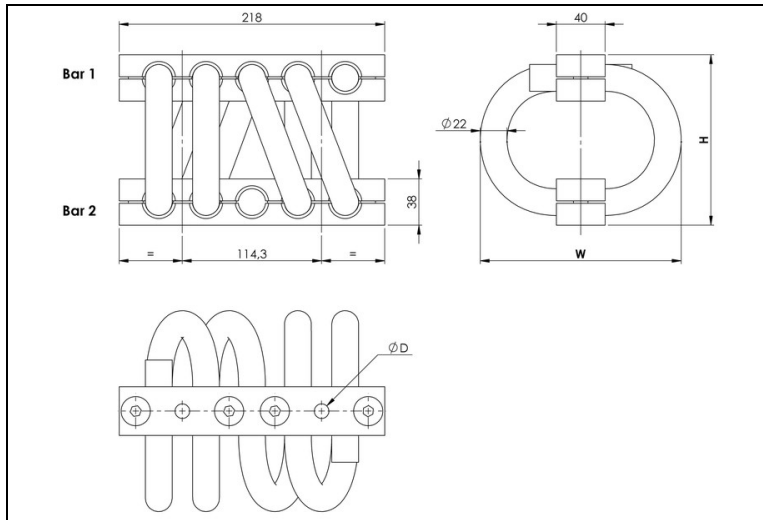
HH16 Series	Model	-15	-17	-20	-25	-30	-40	-50	-60	-70
1. Max Static	F daN	308	256	216	187	151	126	114	99,5	87,2
	d mm	7,3	8,8	10,3	12,1	14,3	16,9	19,4	23,2	27,1
2. Max Shock	F daN	2007	1665	1406	1187	980	805	690	561	467
	d mm	32	39	46	53	64	74	81	92	102
3. Max Vibration	2a mm	3,6	4,4	5,1	5,9	7,1	8,2	9,0	10,2	11,3
	f Hz	6,7	6,1	5,7	5,3	4,9	4,5	4,3	4,0	3,8

1. Max static load (F) with corresponding deflection (d)
2. Max shock load (F) with corresponding deflection (d)
3. Uncoupled resonant frequency (f) under max static loading 1. and max peak to peak sinusoidal vibration input (2a)

**\*IMPORTANT:** Performance characteristics are given here for reference only. They can be increased under specific conditions. Contact us

### TYPICAL SHOCK/VIBRATION SPECIFICATIONS:

- Air** AIR 7306, MIL-E-5400, MIL-C-172, MIL-STD-810
- Ground Forces** GAM EG13A, SEFT 001, MIL-STD-810, VG 9533
- Marine** GAM EG13C, IT25-21/96-31/15-86, MIL-S-167, MIL-S-901, STANAG 042, BV 043.73, BV 044
- Others** GAM EMB1, GAM EMBT4, DEF STAN 07-55, IEC 571, FINABEL 2C



- All metal multidirectional anti-vibration/shock mounts
- Exceptional reliability and long life
- High damping
- No aging
- Corrosion resistant
- Unequalled temperature range : - 180°C to 300°C (-290°F to 570°F)
- Great adaptability/versatility

**Specials on request**

(material size and number of loops, etc.)

*Dimensions are in millimeters. For reference only*

SERIES
Materials and finishes (meets RoHS requirements)
<b>HH17</b>
<b>Cable:</b> stainless steel galvanized available: HHG
<b>Retainer bars:</b> aluminium alloy/ SurTec
<b>Screws:</b> alloy steel/zinc plate
<b>Inserts:</b> stainless steel
All stainless steel: HHSS
Other materials on request

MODEL	height H (mm)	width W (mm)	weight (kg)
-15	133	140	4,1
-17	152	165	4,7
-20	159	178	4,9
-25	175	195	5,4
-30	190	210	5,7
-40	216	235	6,4

INTERFACES			
fixtures holes D	Bar 1		
	2 through holes ø13,5mm	2 through holes ø13,5mm countersunk 90°	2 inserts M12
Bar 2			
2 through holes ø13,5mm	TM2	not standard	not standard
2 through holes ø13,5mm countersunk 90°	TCM	CM2	not standard
2 inserts M12	TIM	CIM	IM2

**H H 1 7 - 1 5 C I M**

**SERIE:** HH17

'Half-Helical' mount from the HH17 series

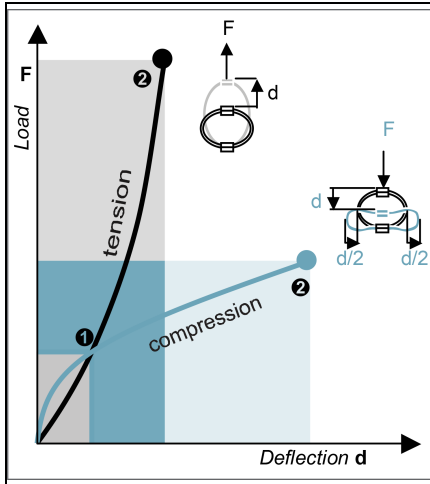
**MODEL:** -15

height: 133mm  
width: 140mm  
weight: 4,1kg  
loops: serie  
standard is 04 loops

**INTERFACE:** CIM

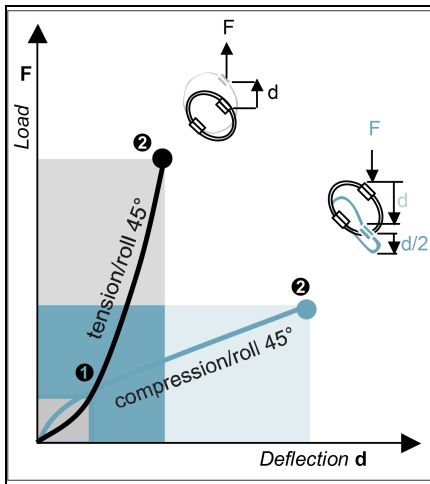
2 through holes ø13,5mm countersunk 90° in bar 1,  
2 inserts M12 in bar 2





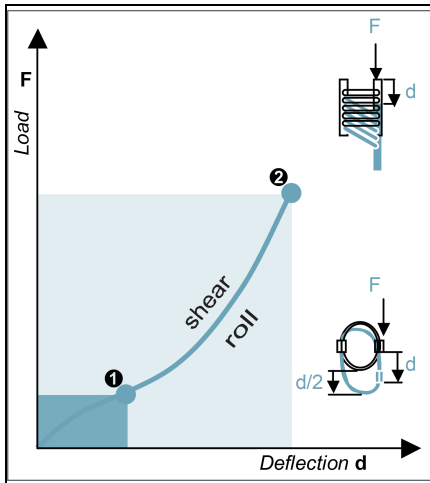
### COMPRESSION AND TENSION

HH17 Series	Model	-15	-17	-20	-25	-30	-40
1. Max Static	F daN	745	575	493	410	353	281
	d mm	9,2	11,8	13,8	16,4	18,7	22,4
2. Max Shock	F daN	2236	1727	1480	1230	1059	844
	d mm	51	63	74	89	102	126
3. Max Vibration	2a mm	5,6	7,0	8,2	9,8	11,3	13,9
	f Hz	5,0	4,6	4,2	3,8	3,6	3,2
1. Max Static	F daN	745	575	493	410	353	281
	d mm	6,3	8,4	9,7	11,4	12,9	15,3
2. Max Shock	F daN	6769	5482	4658	3831	3251	2531
	d mm	25	34	39	46	51	60
3. Max Vibration	2a mm	2,8	3,8	4,4	5,1	5,7	6,6
	f Hz	8,1	7,0	6,6	6,0	5,7	5,2



### COMPRESSION/ROLL 45° - TENSION/ROLL 45°

HH17 Series	Model	-15	-17	-20	-25	-30	-40
1. Max Static	F daN	559	431	370	307	264	211
	d mm	12,9	16,7	19,4	23,0	26,1	31,4
2. Max Shock	F daN	1433	1118	956	793	680	539
	d mm	76	95	112	133	153	189
3. Max Vibration	2a mm	8,5	10,5	12,3	14,7	16,9	20,8
	f Hz	4,3	3,9	3,6	3,3	3,0	2,7
1. Max Static	F daN	559	431	370	307	264	211
	d mm	8,4	11,1	12,8	15,1	17,1	20,3
2. Max Shock	F daN	3343	2716	2306	1896	1607	1249
	d mm	28	39	45	53	59	69
3. Max Vibration	2a mm	3,2	4,4	5,0	5,8	6,5	7,6
	f Hz	7,2	6,3	5,8	5,4	5,1	4,6



### SHEAR OR ROLL

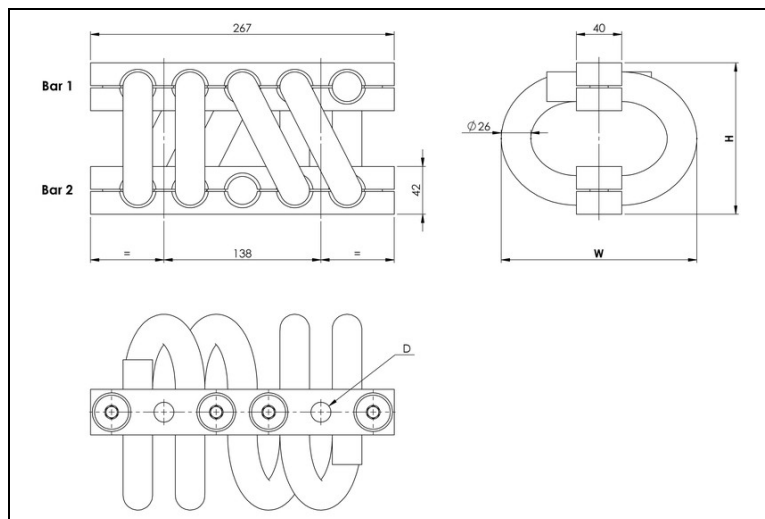
HH17 Series	Model	-15	-17	-20	-25	-30	-40
1. Max Static	F daN	372	287	246	205	176	140
	d mm	12,6	16,0	19,1	23,3	27,2	34,0
2. Max Shock	F daN	1812	1432	1189	955	796	604
	d mm	43	56	65	77	88	106
3. Max Vibration	2a mm	4,8	6,2	7,2	8,6	9,7	11,7
	f Hz	5,6	4,9	4,6	4,2	3,9	3,6

1. Max static load (F) with corresponding deflection (d)
2. Max shock load (F) with corresponding deflection (d)
3. Uncoupled resonant frequency (f) under max static loading 1. and max peak to peak sinusoidal vibration input (2a)

**\*IMPORTANT:** Performance characteristics are given here for reference only. They can be increased under specific conditions. Contact us

## TYPICAL SHOCK/VIBRATION SPECIFICATIONS:

Air	AIR 7306, MIL-E-5400, MIL-C-172, MIL-STD-810
Ground Forces	GAM EG13A, SEFT 001, MIL-STD-810, VG 9533
Marine	GAM EG13C, IT25-21/96-31/15-86, MIL-S-167, MIL-S-901, STANAG 042, BV 043.73, BV 044
Others	GAM EMB1, GAM EMBT4, DEF STAN 07-55, IEC 571, FINABEL 2C



- All metal multidirectional anti-vibration/shock mounts
- Exceptional reliability and long life
- High damping
- No aging
- Corrosion resistant
- Unequalled temperature range : - 180°C to 300°C (-290°F to 570°F)
- Great adaptability/versatility

**Specials on request**

(material size and number of loops, etc.)

Dimensions are in millimeters. For reference only

SERIES
Materials and finishes (meets RoHS requirements)
<b>HH18</b>
<b>Cable:</b> stainless steel galvanized available: HHG
<b>Retainer bars:</b> aluminium alloy/ SurTec
<b>Screws:</b> alloy steel/zinc plate
<b>Inserts:</b> stainless steel
All stainless steel: HHSS
Other materials on request

MODEL			
	height H (mm)	width W (mm)	weight (kg)
-12	133	172	6,3
-15	147	187	6,8
-17	163	205	7,4
-20	182	225	8,1
-30	203	249	8,9
-40	228	276	9,8
-50	256	308	10,9

INTERFACES			
fixtures holes D	Bar 1		
	2 through holes ø17,5mm	2 through holes ø17,5mm countersunk k 90°	2 inserts M16
Bar 2			
2 through holes ø17,5mm	TM2	not standard	not standard
2 through holes ø17,5mm countersunk 90°	TCM	CM2	not standard
2 inserts M16	TIM	CIM	IM2



SERIE: HH18

'Half-Helical' mount from the HH18 series

MODEL: -12

height: 133mm

width: 172mm

weight: 6,3kg

loops: serie

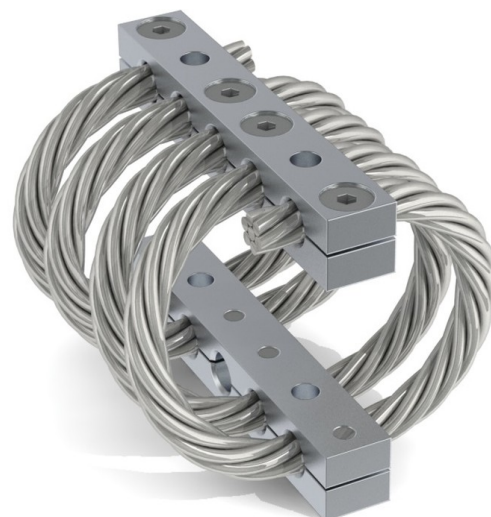
standard is 04 loops

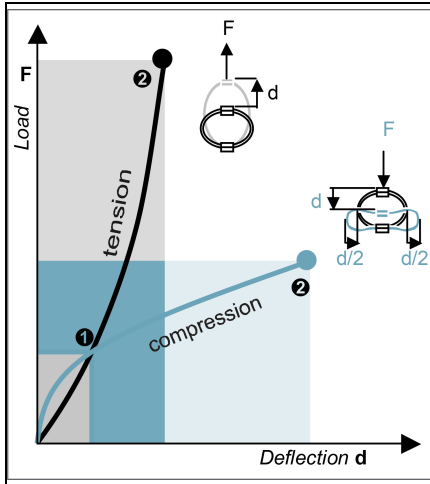
INTERFACE: CIM

2 through holes ø17,5mm

countersunk 90° in bar 1,

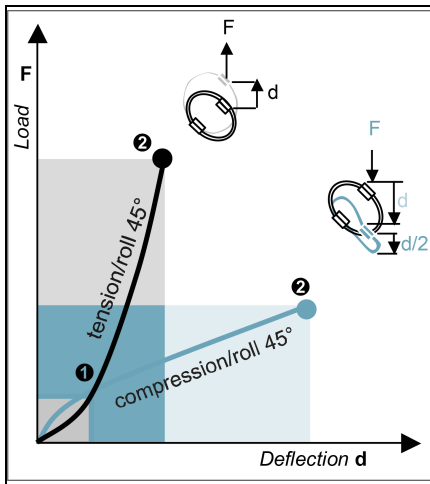
2 inserts M16 in bar 2





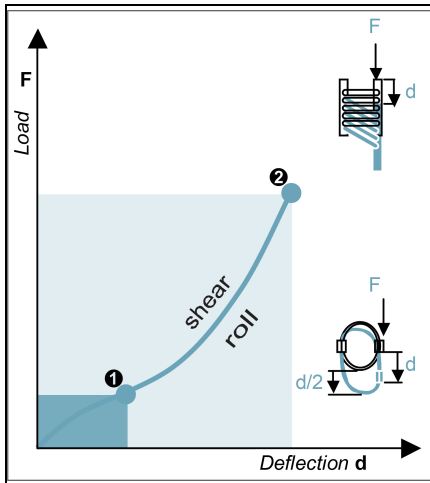
### COMPRESSION AND TENSION

HH18 Series	Model	-12	-15	-17	-20	-30	-40	-50
1. Max Static	F daN	983	848	713	598	491	404	327
	d mm	8,1	10,5	13,1	16,3	19,8	23,9	28,6
2. Max Shock	F daN	2949	2546	2140	1796	1475	1212	983
	d mm	44	56	71	88	107	129	154
3. Max Vibration	2a mm	4,8	6,2	7,8	9,7	11,8	14,3	17,0
	f Hz	6,1	5,3	4,7	4,2	3,8	3,4	3,1
1. Max Static	F daN	983	848	713	598	491	404	327
	d mm	8,1	10,0	11,9	14,1	16,6	19,5	22,8
2. Max Shock	F daN	13520	10757	8569	6810	5437	4323	3444
	d mm	47	52	60	68	78	89	103
3. Max Vibration	2a mm	5,2	5,8	6,7	7,5	8,6	9,8	11,4
	f Hz	6,9	6,4	5,8	5,4	5,0	4,6	4,3



### COMPRESSION/ROLL 45° - TENSION/ROLL 45°

HH18 Series	Model	-12	-15	-17	-20	-30	-40	-50
1. Max Static	F daN	737	636	535	449	368	303	245
	d mm	14,0	17,5	21,4	25,8	30,9	36,7	43,3
2. Max Shock	F daN	2031	1733	1444	1201	982	802	648
	d mm	66	85	106	132	160	194	232
3. Max Vibration	2a mm	7,3	9,4	11,7	14,6	17,7	21,4	25,5
	f Hz	5,1	4,4	3,9	3,5	3,2	2,8	2,6
1. Max Static	F daN	737	636	535	449	368	303	245
	d mm	10,7	13,0	15,6	18,5	21,8	25,6	30,1
2. Max Shock	F daN	6836	5418	4304	3411	2719	2158	1717
	d mm	53	60	69	77	89	102	117
3. Max Vibration	2a mm	5,9	6,6	7,6	8,6	9,9	11,2	13,0
	f Hz	6,2	5,7	5,2	4,8	4,4	4,1	3,8



### SHEAR OR ROLL

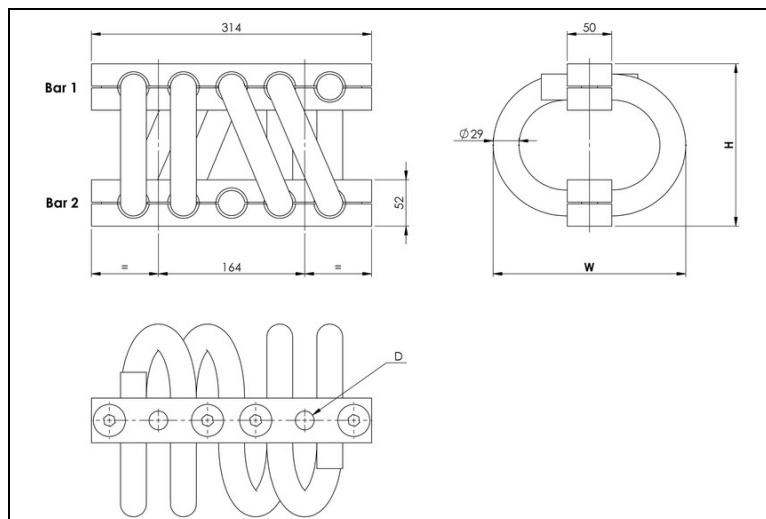
HH18 Series	Model	-12	-15	-17	-20	-30	-40	-50
1. Max Static	F daN	491	424	356	299	245	202	163
	d mm	10,6	14,0	18,0	22,8	28,2	34,6	41,9
2. Max Shock	F daN	3774	2901	2242	1736	1356	1057	829
	d mm	55	66	78	92	109	128	151
3. Max Vibration	2a mm	6,1	7,3	8,7	10,2	12,1	14,2	16,6
	f Hz	5,4	4,8	4,4	4,0	3,6	3,4	3,1

1. Max static load (F) with corresponding deflection (d)
2. Max shock load (F) with corresponding deflection (d)
3. Uncoupled resonant frequency (f) under max static loading 1. and max peak to peak sinusoidal vibration input (2a)

**\*IMPORTANT:** Performance characteristics are given here for reference only. They can be increased under specific conditions. Contact us

## TYPICAL SHOCK/VIBRATION SPECIFICATIONS:

Air	AIR 7306, MIL-E-5400, MIL-C-172, MIL-STD-810
Ground Forces	GAM EG13A, SEFT 001, MIL-STD-810, VG 9533
Marine	GAM EG13C, IT25-21/96-31/15-86, MIL-S-167, MIL-S-901, STANAG 042, BV 043.73, BV 044
Others	GAM EMB1, GAM EMBT4, DEF STAN 07-55, IEC 571, FINABEL 2C



- All metal multidirectional anti-vibration/shock mounts
- Exceptional reliability and long life
- High damping
- No aging
- Corrosion resistant
- Unequalled temperature range : - 180°C to 300°C (-290°F to 570°F)
- Great adaptability/versatility

**Specials on request**

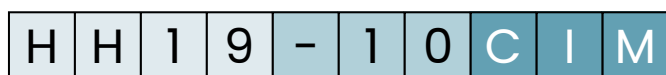
(material size and number of loops, etc.)

*Dimensions are in millimeters. For reference only*

SERIES
Materials and finishes (meets RoHS requirements)
<b>HH19</b>
<b>Cable:</b> stainless steel galvanized available: HHG
<b>Retainer bars:</b> aluminium alloy/ SurTec
<b>Screws:</b> alloy steel/zinc plate
<b>Inserts:</b> stainless steel
All stainless steel: HHSS
Other materials on request

MODEL	height H (mm)	width W (mm)	weight (kg)
-10	182	216	10,8
-12	216	245	12,2
-15	235	264	13,0

INTERFACES			
fixtures holes D	Bar 1		
	2 through holes Ø20mm	2 through holes Ø20mm countersunk 90°	2 inserts M18
Bar 2			
2 through holes Ø20mm	TM2	not standard	not standard
2 through holes Ø20mm countersunk 90°	TCM	CM2	not standard
2 inserts M18	TIM	CIM	IM2



SERIE: HH19

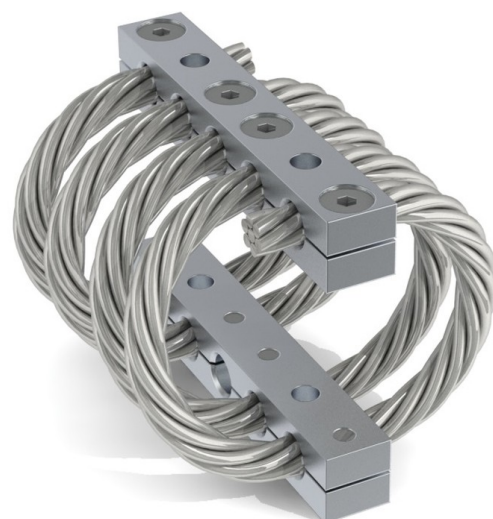
'Half-Helical' mount from the HH19 series

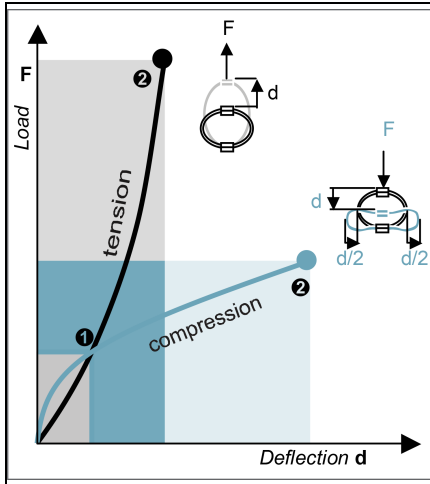
MODEL: -10

height: 182mm  
width: 216mm  
weight: 10,8kg  
loops: serie  
standard is 04 loops

INTERFACE: CIM

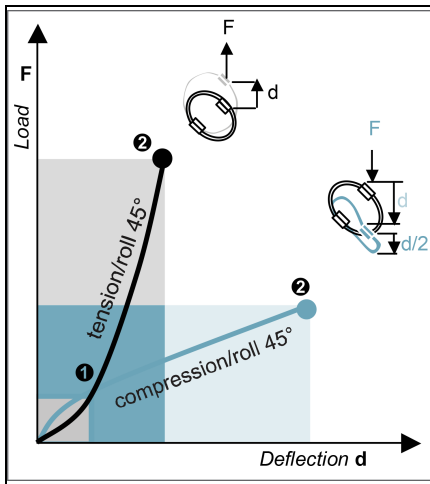
2 through holes Ø20mm  
countersunk 90° in bar 1,  
2 inserts M18 in bar 2





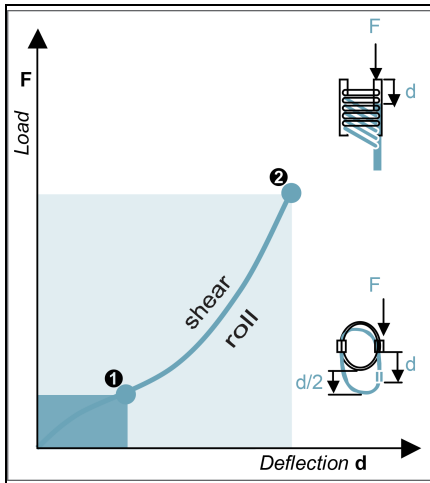
### COMPRESSION AND TENSION

HH19 Series	Model	-10	-12	-15
1. Max Static	F daN	1045	830	716
	d mm	12,8	18,4	21,6
2. Max Shock	F daN	3135	2491	2149
	d mm	69	99	117
3. Max Vibration	2a mm	7,6	11,0	12,9
	f Hz	4,7	3,8	3,4
1. Max Static	F daN	1045	830	716
	d mm	11,0	14,0	16,0
2. Max Shock	F daN	11866	8366	7039
	d mm	53	61	68
3. Max Vibration	2a mm	5,9	6,7	7,5
	f Hz	6,1	5,4	5,1



### COMPRESSION/ROLL 45° - TENSION/ROLL 45°

HH19 Series	Model	-10	-12	-15
1. Max Static	F daN	783	622	537
	d mm	20,3	27,2	31,3
2. Max Shock	F daN	2096	1630	1400
	d mm	103	149	175
3. Max Vibration	2a mm	11,4	16,5	19,3
	f Hz	4,0	3,2	2,9
1. Max Static	F daN	783	622	537
	d mm	14,5	18,5	21,1
2. Max Shock	F daN	5943	4160	3495
	d mm	61	69	77
3. Max Vibration	2a mm	6,7	7,7	8,6
	f Hz	5,4	4,8	4,6



### SHEAR OR ROLL

HH19 Series	Model	-10	-12	-15
1. Max Static	F daN	522	415	358
	d mm	16,8	25,4	30,3
2. Max Shock	F daN	3245	2161	1778
	d mm	72	93	107
3. Max Vibration	2a mm	8,0	10,3	11,8
	f Hz	4,5	3,9	3,6

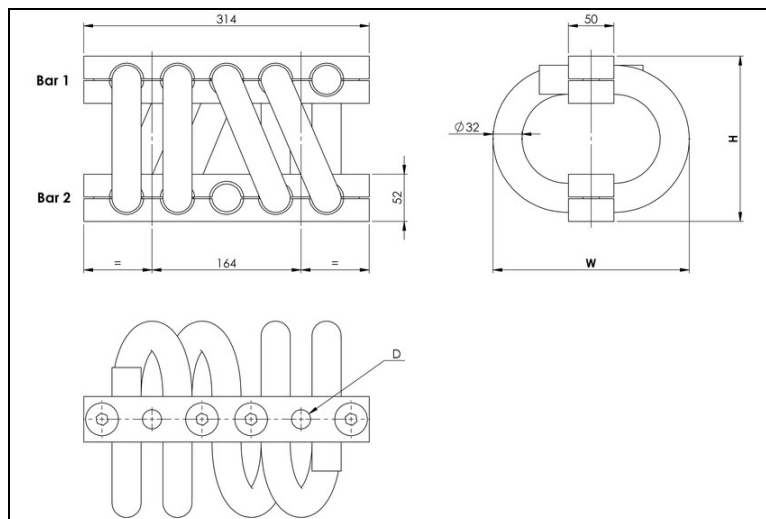
1. Max static load (F) with corresponding deflection (d)
2. Max shock load (F) with corresponding deflection (d)
3. Uncoupled resonant frequency (f) under max static loading 1. and max peak to peak sinusoidal vibration input (2a)

**\*IMPORTANT:** Performance characteristics are given here for reference only. They can be increased under specific conditions. Contact us

### TYPICAL SHOCK/VIBRATION SPECIFICATIONS:

- Air** AIR 7306, MIL-E-5400, MIL-C-172, MIL-STD-810
- Ground Forces** GAM EG13A, SEFT 001, MIL-STD-810, VG 9533
- Marine** GAM EG13C, IT25-21/96-31/15-86, MIL-S-167, MIL-S-901, STANAG 042, BV 043.73, BV 044
- Others** GAM EMB1, GAM EMBT4, DEF STAN 07-55, IEC 571, FINABEL 2C





- All metal multidirectional anti-vibration/shock mounts
- Exceptional reliability and long life
- High damping
- No aging
- Corrosion resistant
- Unequalled temperature range : - 180°C to 300°C (-290°F to 570°F)
- Great adaptability/versatility

Specials on request

(material size and number of loops, etc.)

Dimensions are in millimeters. For reference only

SERIES
Materials and finishes (meets RoHS requirements)
<b>HH20</b>
<b>Cable:</b> stainless steel galvanized available: HHG
<b>Retainer bars:</b> aluminium alloy/ SurTec
<b>Screws:</b> alloy steel/zinc plate
<b>Inserts:</b> stainless steel.
All stainless steel: HHSS
Other materials on request

MODEL	height H (mm)	width W (mm)	weight (kg)
-10	182	210	12,0
-12	216	251	14,0
-15	235	270	15,0

INTERFACES			
fixtures holes D	Bar 1		
	2 through holes ø20mm	2 through holes ø20mm countersunk 90°	2 inserts M18
Bar 2			
2 through holes ø20mm	TM2	not standard	not standard
2 through holes ø20mm countersunk 90°	TCM	CM2	not standard
2 inserts M18	TIM	CIM	IM2

**H H 2 0 - 1 0 C I M**

SERIE: HH20

'Half-Helical' mount from the HH20 series

MODEL: -10

height: 182mm

width: 210mm

weight: 12,0kg

loops: serie

standard is 04 loops

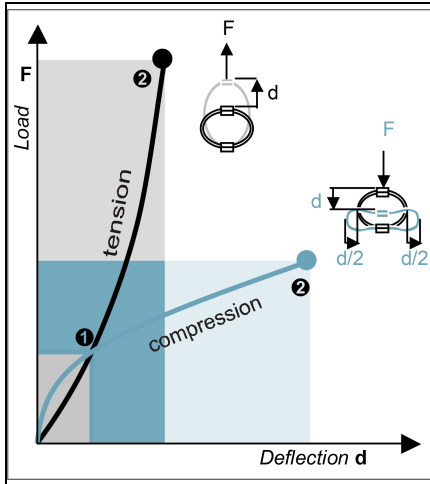
INTERFACE: CIM

2 through holes ø20mm

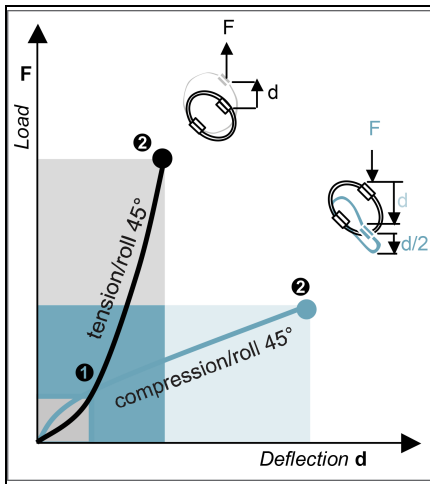
countersunk 90° in bar 1,

2 inserts M18 in bar 2

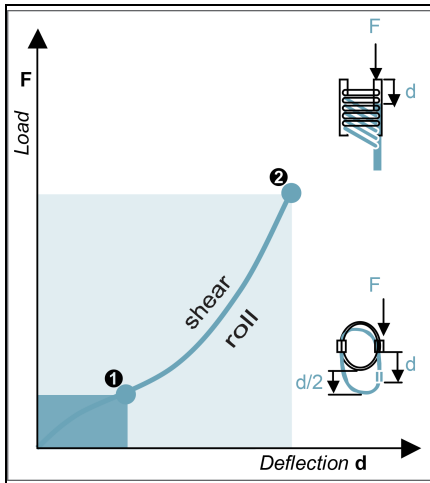




COMPRESSION AND TENSION				
HH20 Series	Model	-10	-12	-15
1. Max Static	F daN	1222	938	793
	d mm	12,6	17,9	21,4
2. Max Shock	F daN	3667	2814	2380
	d mm	68	97	116
3. Max Vibration	2a mm	7,5	10,7	12,8
	f Hz	4,7	3,9	3,5
1. Max Static	F daN	1222	938	793
	d mm	10,9	14,2	16,5
2. Max Shock	F daN	13860	9808	8074
	d mm	52	64	72
3. Max Vibration	2a mm	5,8	7,0	8,0
	f Hz	6,1	5,4	5,0



COMPRESSION/ROLL 45° - TENSION/ROLL 45°				
HH20 Series	Model	-10	-12	-15
1. Max Static	F daN	916	703	595
	d mm	20,0	27,1	31,8
2. Max Shock	F daN	2451	1854	1560
	d mm	102	145	174
3. Max Vibration	2a mm	11,3	16,0	19,2
	f Hz	4,0	3,3	3,0
1. Max Static	F daN	916	703	595
	d mm	14,3	18,8	21,8
2. Max Shock	F daN	6941	4889	4017
	d mm	60	73	82
3. Max Vibration	2a mm	6,6	8,1	9,1
	f Hz	5,5	4,8	4,5



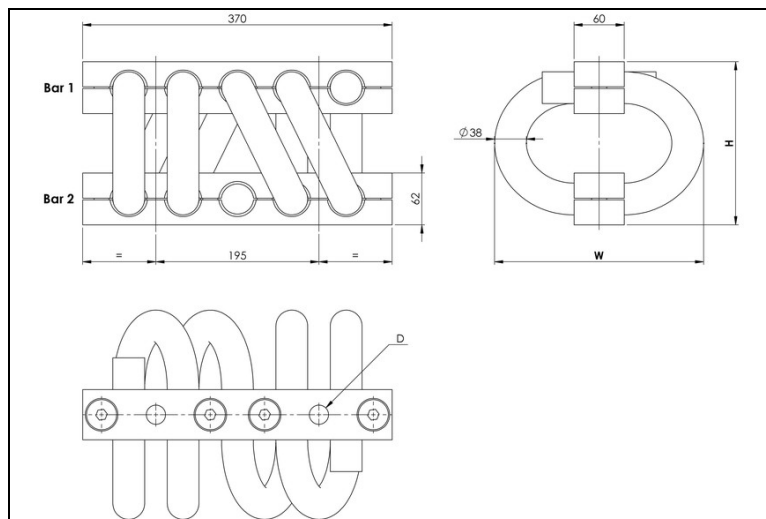
SHEAR OR ROLL				
HH20 Series	Model	-10	-12	-15
1. Max Static	F daN	611	469	396
	d mm	16,5	24,6	30,0
2. Max Shock	F daN	3806	2551	2049
	d mm	71	94	109
3. Max Vibration	2a mm	7,9	10,4	12,1
	f Hz	4,5	3,9	3,6

1. Max static load (F) with corresponding deflection (d)  
 2. Max shock load (F) with corresponding deflection (d)  
 3. Uncoupled resonant frequency (f) under max static loading 1. and max peak to peak sinusoidal vibration input (2a)

**\*IMPORTANT:** Performance characteristics are given here for reference only. They can be increased under specific conditions. Contact us

## TYPICAL SHOCK/VIBRATION SPECIFICATIONS:

- Air** AIR 7306, MIL-E-5400, MIL-C-172, MIL-STD-810
- Ground Forces** GAM EG13A, SEFT 001, MIL-STD-810, VG 9533
- Marine** GAM EG13C, IT25-21/96-31/15-86, MIL-S-167, MIL-S-901, STANAG 042, BV 043.73, BV 044
- Others** GAM EMB1, GAM EMBT4, DEF STAN 07-55, IEC 571, FINABEL 2C



- All metal multidirectional anti-vibration/shock mounts
- Exceptional reliability and long life
- High damping
- No aging
- Corrosion resistant
- Unequalled temperature range : - 180°C to 300°C (-290°F to 570°F)
- Great adaptability/versatility

**Specials on request**

(material size and number of loops, etc.)

*Dimensions are in millimeters. For reference only*

SERIES
Materials and finishes (meets RoHS requirements)
<b>HH21</b>
<b>Cable:</b> stainless steel galvanized available: HHG
<b>Retainer bars:</b> aluminium alloy/ SurTec
<b>Screws:</b> alloy steel/zinc plate
<b>Inserts:</b> stainless steel
All stainless steel: HHSS
Other materials on request

MODEL			
	height H (mm)	width W (mm)	weight (kg)
-10	195	250	19,0
-12	230	280	21,5
-15	260	320	24,2

INTERFACES			
fixtures holes D	Bar 1		
	2 through holes $\varnothing 21,5\text{mm}$	2 through holes $\varnothing 21,5\text{mm}$ countersunk k 90°	2 inserts M20
Bar 2			
2 through holes $\varnothing 21,5\text{mm}$	TM2	not standard	not standard
2 through holes $\varnothing 21,5\text{mm}$ countersunk 90°	TCM	CM2	not standard
2 inserts M20	TIM	CIM	IM2

**H H 2 1 - 1 0 C I M**

**SERIE:** HH21

'Half-Helical' mount from the HH21 series

**MODEL:** -10

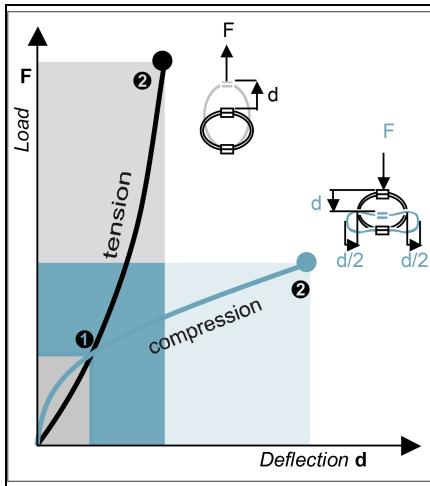
height: 195mm  
width: 250mm  
weight: 19,0kg  
loops: serie

standard is 04 loops

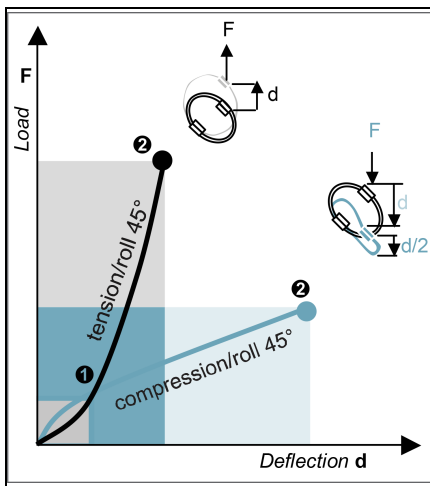
**INTERFACE:** CIM

2 through holes  $\varnothing 21,5\text{mm}$   
countersunk 90° in bar 1,  
2 inserts M20 in bar 2

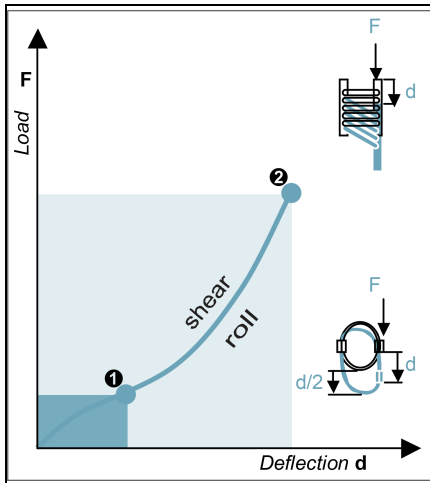




COMPRESSION AND TENSION				
HH21 Series	Model	-10	-12	-15
1. Max Static	F daN	1759	1467	1118
	d mm	11,8	17,6	22,6
2. Max Shock	F daN	5278	4403	3356
	d mm	63	95	122
3. Max Vibration	2a mm	7,0	10,5	13,5
	f Hz	5,1	4,0	3,5
1. Max Static	F daN	1759	1467	1118
	d mm	11,8	15,4	19,6
2. Max Shock	F daN	24087	16866	12789
	d mm	67	75	95
3. Max Vibration	2a mm	7,4	8,3	10,5
	f Hz	5,8	5,2	4,6



COMPRESSION/ROLL 45° - TENSION/ROLL 45°				
HH21 Series	Model	-10	-12	-15
1. Max Static	F daN	1319	1100	839
	d mm	20,3	28,1	35,9
2. Max Shock	F daN	3633	2950	2247
	d mm	95	143	183
3. Max Vibration	2a mm	10,5	15,7	20,2
	f Hz	4,2	3,4	3,0
1. Max Static	F daN	1319	1100	839
	d mm	15,4	20,2	25,7
2. Max Shock	F daN	12177	8452	6407
	d mm	77	85	109
3. Max Vibration	2a mm	8,5	9,4	12,0
	f Hz	5,2	4,6	4,1



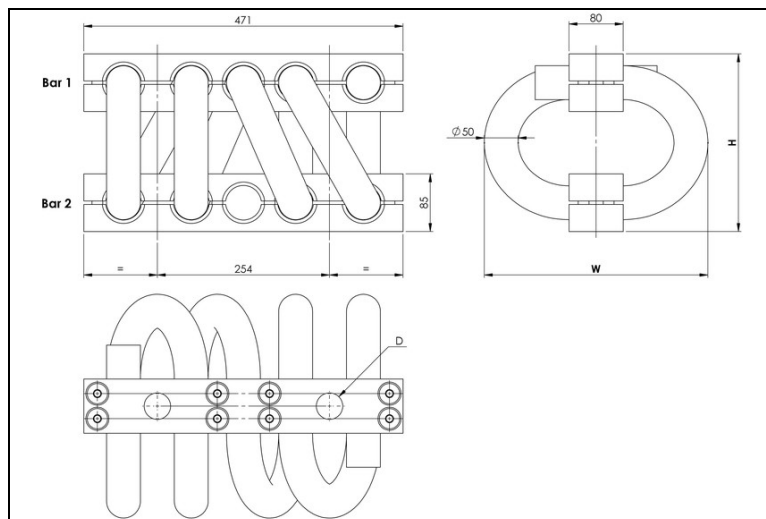
SHEAR OR ROLL				
HH21 Series	Model	-10	-12	-15
1. Max Static	F daN	879	733	559
	d mm	15,2	23,7	31,4
2. Max Shock	F daN	6755	4495	3287
	d mm	80	101	129
3. Max Vibration	2a mm	8,8	11,2	14,2
	f Hz	4,4	3,8	3,4

1. Max static load (F) with corresponding deflection (d)
2. Max shock load (F) with corresponding deflection (d)
3. Uncoupled resonant frequency (f) under max static loading 1. and max peak to peak sinusoidal vibration input (2a)

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## TYPICAL SHOCK/VIBRATION SPECIFICATIONS:

- Air** AIR 7306, MIL-E-5400, MIL-C-172, MIL-STD-810
- Ground Forces** GAM EG13A, SEFT 001, MIL-STD-810, VG 9533
- Marine** GAM EG13C, IT25-21/96-31/15-86, MIL-S-167, MIL-S-901, STANAG 042, BV 043.73, BV 044
- Others** GAM EMB1, GAM EMBT4, DEF STAN 07-55, IEC 571, FINABEL 2C



- All metal multidirectional anti-vibration/shock mounts
- Exceptional reliability and long life
- High damping
- No aging
- Corrosion resistant
- Unequalled temperature range : - 180°C to 300°C (-290°F to 570°F)
- Great adaptability/versatility

**Specials on request**

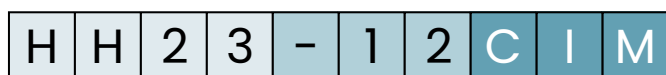
(material size and number of loops, etc.)

*Dimensions are in millimeters. For reference only*

SERIES
Materials and finishes (meets RoHS requirements)
<b>HH23</b>
<b>Cable:</b> stainless steel galvanized available: HHG
<b>Retainer bars:</b> aluminium alloy/ SurTec
<b>Screws:</b> alloy steel/zinc plate
<b>Inserts:</b> stainless steel
All stainless steel: HHSS
Other materials on request

MODEL			
	height H (mm)	width W (mm)	weight (kg)
-12	262	330	42,1
-15	289	360	45,9
-17	320	395	50,1
-20	356	434	55,0
-30	397	480	60,6

INTERFACES			
fixtures holes D	Bar 1		
	2 through holes $\phi 39\text{mm}$	2 through holes $\phi 39\text{mm}$ counter-sunk 60°	2 inserts M36
Bar 2			
2 through holes $\phi 39\text{mm}$	TM2	not standard	not standard
2 through holes $\phi 39\text{mm}$ counter-sunk 60°	TCM	CM2	not standard
2 inserts M36	TIM	CIM	IM2



SERIE: HH23

'Half-Helical' mount from the HH23 series

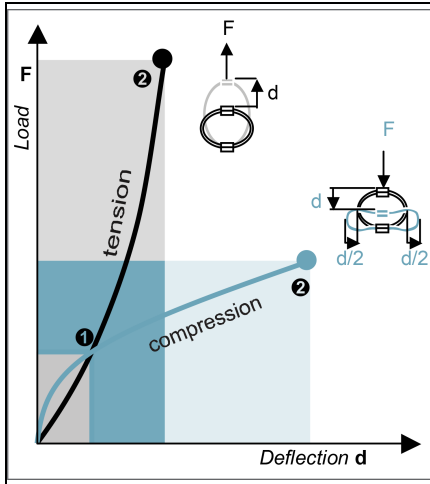
MODEL: -12

height: 262mm  
width: 330mm  
weight: 42,1kg  
loops: serie  
standard is 04 loops

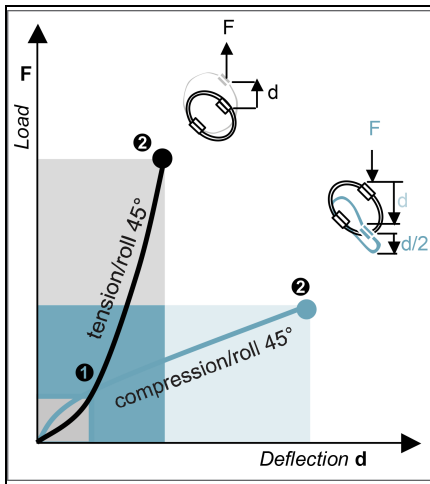
INTERFACE: CIM

2 through holes  $\phi 39\text{mm}$  counter-sunk 60° in bar 1,  
2 inserts M36 in bar 2

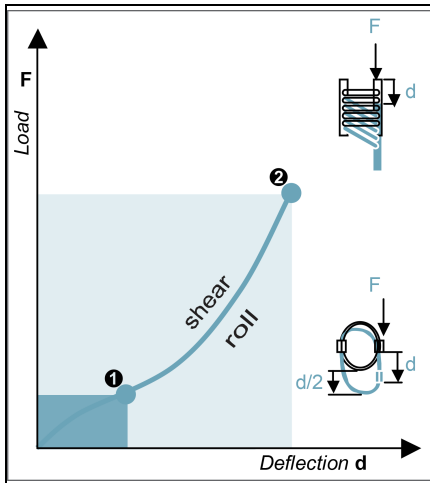




COMPRESSION AND TENSION		Model	-12	-15	-17	-20	-30
1. Max Static	F daN		3733	3195	2682	2242	1846
	d mm		15,3	19,8	24,9	30,9	37,7
2. Max Shock	F daN		11200	9587	8046	6727	5538
	d mm		82	107	135	167	204
3. Max Vibration	2a mm		9,1	11,8	14,8	18,4	22,5
	f Hz		4,4	3,9	3,4	3,0	2,7
1. Max Static	F daN		3733	3195	2682	2242	1846
	d mm		15,2	18,6	22,4	26,6	31,5
2. Max Shock	F daN		50171	39925	31811	25367	20233
	d mm		85	97	112	128	147
3. Max Vibration	2a mm		9,4	10,7	12,4	14,1	16,2
	f Hz		5,1	4,7	4,3	3,9	3,6



COMPRESSION/ROLL 45° - TENSION/ROLL 45°		Model	-12	-15	-17	-20	-30
1. Max Static	F daN		2800	2396	2011	1681	1384
	d mm		26,1	32,8	40,4	48,9	58,6
2. Max Shock	F daN		7689	6511	5419	4495	3680
	d mm		124	160	202	251	306
3. Max Vibration	2a mm		13,7	17,7	22,3	27,6	33,7
	f Hz		3,7	3,2	2,8	2,5	2,3
1. Max Static	F daN		2800	2396	2011	1681	1384
	d mm		19,7	24,2	29,3	34,9	41,3
2. Max Shock	F daN		25343	20097	15969	12702	10113
	d mm		97	111	128	146	168
3. Max Vibration	2a mm		10,7	12,3	14,1	16,1	18,5
	f Hz		4,6	4,2	3,8	3,5	3,2



SHEAR OR ROLL		Model	-12	-15	-17	-20	-30
1. Max Static	F daN		1866	1597	1341	1121	923
	d mm		19,5	26,0	33,8	42,9	53,4
2. Max Shock	F daN		14277	10921	8415	6526	5082
	d mm		102	123	147	175	207
3. Max Vibration	2a mm		11,2	13,6	16,3	19,3	22,8
	f Hz		3,9	3,5	3,2	2,9	2,7

1. Max static load (F) with corresponding deflection (d)  
 2. Max shock load (F) with corresponding deflection (d)  
 3. Uncoupled resonant frequency (f) under max static loading 1. and max peak to peak sinusoidal vibration input (2a)

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## TYPICAL SHOCK/VIBRATION SPECIFICATIONS:

- Air** AIR 7306, MIL-E-5400, MIL-C-172, MIL-STD-810
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- Others** GAM EMB1, GAM EMBT4, DEF STAN 07-55, IEC 571, FINABEL 2C