Open Restrained Spring
Type ORS

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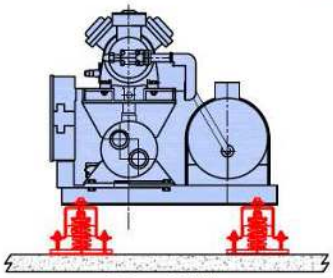
The ORS mounting has been designed specifically for applications where transmission of low frequency machinery vibration to a building structure must be reduced to avoid physical damage or annoyance to the the occupants. Vertical and lateral restraint is provided to control movement of the mounted equipment when subjected to external forces. This could otherwise be excessive due to the low stiffness springs required to provide isolation of low frequency vibration.

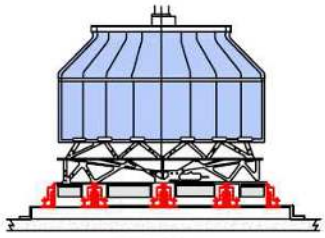
Equipment located at roof level can be successfully mounted on the ORS units as any movement caused by high wind loads will be limited. Cooling Towers and chillers which contain large volumes of liquid will benefit from installation on ORS mountings because during "draining down" upward movement is restricted thus avoiding damage to pipework and electrical connections.

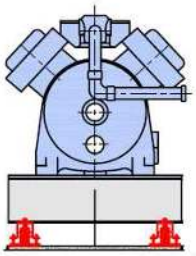
DESIGN FEATURES

- High strength all steel construction.
- Colour coded helical steel springs with nominal deflections of 25mm and 50mm and up to 50% overload capacity.
- Vertical and lateral restraints have rubber inserts to avoid any metallic contact and adequate radial clearance ensures isolation efficiency is not impaired.
- Spring located using rubber sleeved pegs and seated on a rubber washer to reduce high frequency transmission.
- Working height and vertical limiting stops are fully adjustable.
- 6 mm thick cross ribbed rubber seating pad supplied as standard.

TYPICAL INSTALLATION


Refrigerant Chiller


Cooling Tower

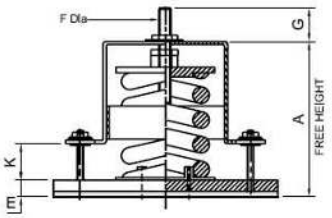

Refrigerant compressor on captive open spring restraint mountings.

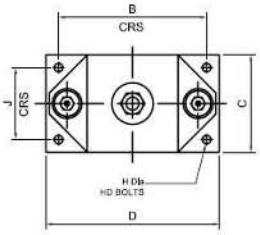
HSI 422 ORS JAN 13

RMS CORPORATION

RESISTOFLEX SINCE 1947
Vibration Shock Seismic Control

OPEN RESTRAINED SPRING — ORS





TYPE ORS MOUNTINGS - SIZE ORS 25

PART NO.	COLOUR CODE	RATED LOAD kg	DEFLECTION AT RATED LOAD mm	DIMENSIONS mm										WT. (kg.) Max.
				A	B	C	D	E	F	G	H	J	K	
ORS25/200	RED	200	25	168	200	110	230	16	M16	40	M10	80	42	6
ORS25/300	PURPLE	300	25											
ORS25/400	GREY	400	25											
ORS25/500	ORANGE	500	25											
ORS25/600	BROWN	600	25											
ORS25/700	ORANGE/BLACK*	700	25											
ORS25/800	BLACK	800	25											
ORS25/1000	BLUE	1000	25											
ORS25/1200	BLUE/BLACK*	1200	25											
ORS25/650	YELLOW	650	27	196	280	150	310	21	M20	50	M12	120	45	14
ORS25/850	GREEN	850	25											
ORS25/1050	BLUE	1050	25											
ORS25/1250	WHITE	1250	25											
ORS25/1300	RED	1300	27	234	280	180	330	21	M24	50	M16	140	45	20
ORS25/1600	PURPLE	1600	25											
ORS25/2000	GREY	2000	26											
ORS25/2300	BROWN	2300	29											

TYPE ORS MOUNTINGS - SIZE ORS 50

PART NO.	COLOUR CODE	RATED LOAD kg	DEFLECTION AT RATED LOAD mm	DIMENSIONS mm										WT. (kg.) Max.
				A	B	C	D	E	F	G	H	J	K	
ORS50/100	Yellow	100	50	168	200	110	230	16	M16	40	M10	80	42	6
ORS50/200	Green	200	50											
ORS50/300	Blue	300	50											
ORS50/400	White	400	50											
ORS50/500	Red/Black	500	50											
ORS50/510	Black/Purple	510	51	240	280	180	330	21	M24	50	M16	140	51	18
ORS50/760	Black/Grey	760	51											
ORS50/1000	Black/Orange	1000	50											
ORS50/1300	Black/Brown	1300	53											

* Internal nested spring

Spring Deflection

Spring stiffness is linear over its actual working range therefore, the actual deflection for a given load can be calculated as follows:

$$\text{Actual Deflection (mm)} = \frac{\text{Actual Load (Kg)}}{\text{Rated Load (Kg)}} \times \text{Rated Deflection (mm)}$$

ISOLATION EFFICIENCY AT TYPICAL MACHINE SPEEDS

MACHINE SPEEDS (rmp)	EFFICIENCY %	
	25 mm DEFL.	50 mm DEFL.
300	34.0	75.2
500	83.3	92.3
750	93.2	96.7
1000	96.3	98.2
1200	97.4	98.7
1500	98.4	99.2

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

For more detailed information and technical assistance, please contact our Applications Engineering Group.