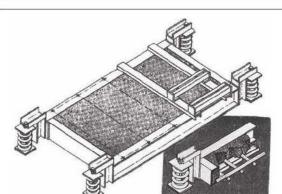
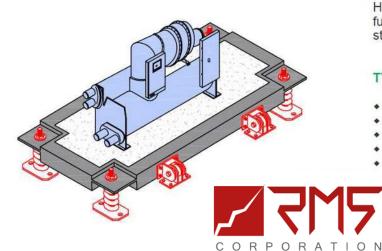
# **Inertia Pouring Frame**

Type IPF









Inertia Pouring Frame has been developed for use with machines which produced high level of Vibration or those which are subjected to external forces or are simply unstable when mounted directly on high deflection/low stiffness helical spring or rubber Mountings for giving extremely high degree of vibration isolation without excessive motion.

Vibration attenuation is dependent on base rigidity as well as Isolator deflection. If the base becomes distorted because of weight distribution, belt pull or the torque introduced by a direct drive, the equipment will wear out more quickly and vibrate excessively because of the loss of the alignment.

Base RESONANCE is another difficulty that can result from poor frame construction, If base members are light and long, they will tend to RESONATE at low frequencies that may be sympathetic or close to the operating speeds of the mounted equipment.

The Frame is of fully welded construction with reinforcing bars and can be straight away filled at site with concrete to become rigid floating concrete platform.

The inertia weight of the concrete will also reduce the operating amplitude of equipment.

Viscous Damper can be incorporated to further control motion during transient conditions such as machine run-down and machine faults.

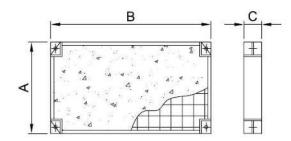
Height saving brackets can be used to further lower the Centre of Gravity for better stability.

# **TYPICAL APPLICATIONS**

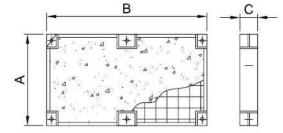
- Compressors
- Generating Sets
- Engine/Dynamometer Test Rigs
- Refrigeration Plant
- Pumps (particularly Belt Driven )



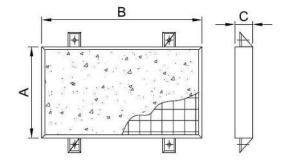
## STANDARD DESIGN



## INTERMEDIATE BRACKTES FOR LONGER BASES



## CANTILEVER BRACKETS DESIGN



#### Standard Frame Weights, Sizes & Mounting Selections

	C=150mm WT(Kg)	C=200mm WT(Kg)	C=300mm WT(Kg)
AXB (mm)			
600 X 600	147		
600 X 750	180		
600 X 900	211		
600 X 1200	277		-
600 X 1500	341		
750 X 750	219	288	
750 X 900	259	342	
750 X 1200	339	448	
750 X 1500	420	554	
750 X 1800	500	660	
990 X 900	307	404	600
900 X 1200	402	531	788
900 X 1500	498	658	977
900 X 1800	594	785	1166
900 X 2100		911	1353
1050 X 1050	465	542	804
1050 X 1500	575	761	1121
1050 X 1800	687	908	1350
1050 X 2100		1055	1570
1050 X 2400		1201	1788
1200 X 1200		699	1038
1200 X 1500		865	1286
1200 X 1800		1032	1536
1200 X 2100		1199	1785
1200 X 2400		1369	2038
1400 X 1200			1397
1400 X 1400			1783
1400 X 2100			2074
1400 X 2400			2365

Frame weights include concrete at 2245Kg/ m³ and mounting selections are based on 4 mountings per frame allowing 50% additional weight for the equipment to be supported. Nominal 25mm deflection Type OS Open Spring Isolators have been listed, however the exact deflection will vary depending on the applied load. When ordering, frames should be specified as follows: IPF 150-600 x 900 i.e. Type and thickness required and plan dimension commencing with smallest length Mountings should be listed e.g. "45 OFF OS 25/100-

#### Design and Installation Notes:-

- ♦ The equipment should be located on the frame such that the load is evenly distributed over the mounting positions.
- ◆ Equipment and ancillary parts should not overhang the frame and hold down bolts MUST NOT be less than 100mm from the outer edge of the frame.
- All connections to the equipment should incorporate flexible sections and pipe work etc must be independently supported.
- ◆ Grade 25 (25N/mm²) concrete should be used as a minimum strength requirement for filling Inertia Pouring Frames.
- When filling frames with concrete, positions on flat and level fully supported shuttering board with a polythene separations layer. Mountings should <u>NOT</u> be fitted at this stage.