

DYNAMIC LOAD Supports

- Piping may be affected by earth quake, siesmic, wind, pressure surge (due to sudden closure of valve). During the above condition, piping may face some force/load which may be pull or push (±- Called as DYNAMIC). These loads are sudden in nature & short lived. But these loads/ forces are to be suitably taken care of; else it may destroy/sabotage the piping as such. These loads acting on the piping will be transferred to the adjacent structure through proper supports. These supports are termed as "DYNAMIC LOAD supports." The dynamic load supports used most commonly are:
- RIGID STRUT SUPPORT
- SNUBBER SUPPORT
- 2. **RIGID STRUT SUPPORT** (let us call it as R.S. for simplicity)

Where is it used:

In dynamic condition, piping at some specific support location may feel sudden enormous force/load & it will be instantaneous in a particular direction (X, Y, or Z). This load/force will be both compressive & tensile in nature (±value), but have"0" movement in the direction of force. It means the support should take care of both compressive & tensile load only, NO MOVEMENT TO BE ABSORBED.

In a nutshell

The pipe will experience a \pm force (tensile & compressive load) in any one direction (say X) & will have "0" movement (in X direction). For such location & condition R.S. will be selected. Such dynamic supports are termed as "RIGID supports" to absorb the above \pm load, we select R.S. These rigid struts are capable of taking both compressive/ tension force.

- 3. How is it used:- We use along with R.S. other connecting components:
- a) Dynamic clamp (sometimes called as Stiff clamp- ref RY3, RY4 &RP5 of PHS catalogue Page 169 to 220) connected to the pipe & R.S. (ref RS1 to 11 of PHS catalogue Page 165 to 167)

b) Welding clevis (ref RWC 1 to 11 of PHS catalogue Page 165 & 166 for various loads) & this clevis is welded to the structure & or pipe with rigid strut through welded pipe trunnion on parent pipe.

Let us discuss further about R.S. in the next issue. Till then bye!!

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