**Pipe Anchoring and Guiding**

A piping system which utilizes flexible metal hose to absorb pipe movement must be properly anchored and guided to assure correct functioning and maximum service life of the metal hose. The basic principles to be observed are:

1. The direction of pipe motion must be perpendicular to the centre line (axis) of the hose.
2. The pipe must be anchored at each change of direction where a flexible metal hose is employed to prevent torsional stress.

Typical examples of correct and incorrect guiding are shown below:

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### Right

- Anchor (1)
- Guide
- Hose Assembly
- Valve (if used)
- Thermal Expansion

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### Wrong

- Wrong - pipe not guided or supported, allowing pipe to sag.
- Wrong - pipe not guided, allowing pipe to sag.
- Wrong - weight of piping on hose compresses hose axially, causing braid to bow-out, allowing the corrugated hose to squash or buckle.
- Wrong - if valve between equipment and hose is quick-acting type

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(1) Anchors are to be used at the end of the hose opposite from the source of motion.

(2) Approximate length to straighten flow rate before entering corrugated metal hose.
(1) Direction of motion must be applied perpendicular to hose centre line (axis).