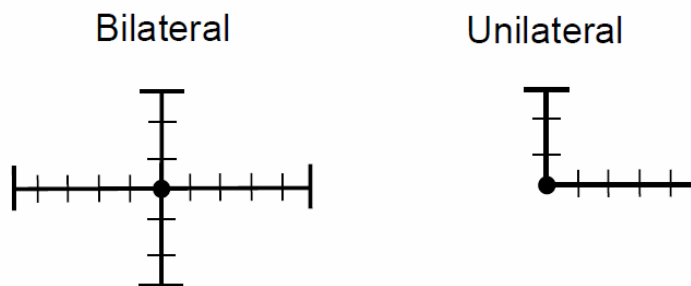


## Hydraulic Institute Testing Acceptance Values

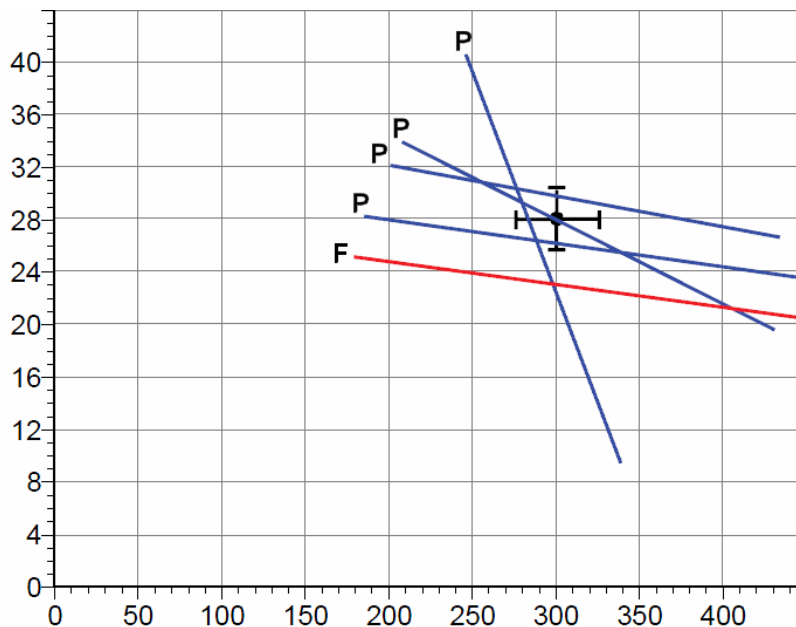
The Hydraulic Institute standard ANSI/HI 14.6, which supersedes ANSI/HI 1.6 and ANSI/HI 2.6, and has been harmonized with ISO 9906-2012, no longer identifies acceptance values as “Level A” or “Level B.” This document will explain the new acceptance levels.

Hydraulic Institute testing acceptance values are based on a range originating from a specified duty point. This range is determined by the chosen testing tolerances. These tolerances are given by HI as Level 1 bilateral or unilateral, Level 2 bilateral or unilateral, or Level 3 bilateral. These are commonly referred to as levels 1B, 1U, 2B, 2U, and 3B. Standard HOMA testing is in accordance with Level 2B tolerances. Optionally, HOMA can test to level 1B or 1U tolerances. Level 1U tolerances typically require oversized motors and the pump must be selected by the factory.

The range around the duty point is best visualized as “arms” originating from the duty point (see below). The lengths of the arms are determined by the percent allowable tolerance. Bilateral testing has arms extending in all four directions (both positive and negative tolerances), while unilateral testing only has arms extending up and to the right (positive tolerances only).



If the plotted curve of the pump test results intersects any of the representative “arms”, the pump meets HI acceptance levels for performance testing. Please see examples below. All curves labeled “P” are passing curves. The single curve labeled “F” is a failing curve.



For pumps with more than 10kW (13.4 hp) P2, the tolerances allowed by HI are as follows:

Level	Optional		Recommended
	1	2	2
	Bilateral	Unilateral	Bilateral
Flow	±5%	+10%	±8%
Head	±3%	+6%	±5%

For pumps with less than 10kW (13.4 hp) P2, the only tolerances allowed by HI are ±10% flow, ±8% head for bilateral, and +10%, +8% head for unilateral.