

Contents

	Page
Foreword	v
2.6 Test	1
2.6.1 Scope	1
2.6.2 Types of tests	1
2.6.3 Terminology	1
2.6.4 Hydrostatic test (optional)	8
2.6.5 Performance test	9
2.6.6 Net positive suction head required test (optional)	18
2.6.7 Mechanical test (optional)	22
2.6.8 Measurement of rate of flow	24
2.6.9 Head measurement	27
2.6.10 Power measurement	31
2.6.11 Speed measurement	32
2.6.12 Temperature measurement and instruments	32
2.6.13 Model tests	32
Appendix A References	36
Appendix B Index	37
Figures	
2.63 — Datum elevations for various pump designs	4
2.65 — Total suction head – open suction	4
2.64 — First stage impeller datum closed suction – can pump	4
2.66 — Total suction head – closed suction	5
2.67 — Total head – open suction	5
2.68 — Total head – closed suction	6
2.69 — Bowl assembly performance test – open sump	11
2.70 — Pump performance test – closed suction	12
2.71 — Pump performance test – closed loop	12
2.72 — Pump performance curves	16
2.73 — Suction throttling NPSH test constant sump level	19
2.74 — Level control NPSH test	19
2.75 — Closed loop NPSH test	19
2.76 — Closed loop NPSH test – alternate arrangement for can pump	20
2.77 — NPSH at constant rate of flow	20
2.78 — NPSH at constant rate of flow	21
2.79 — NPSH at varying rate of flow	21
2.80 — Pressure tap opening	25

2.81 — Welded-on pressure tap opening	25
2.82 — Single tap connection	28
2.83 — Loop manifold connecting pressure tabs.	28
2.84 — Gauge/valve arrangement.	28
2.85 — Bowl assembly head measurement	29
2.86 — Total head measurement – can pump.	29
2.87 — Total head measurement – wet pit	30
2.88 — Gauge below atmospheric pressure	30
2.89 — Fluid gauge with air leg below atmospheric pressure	30

Tables

2.11 — Symbols.	2
2.12 — Subscripts	3
2.13 — Recommended instrument calibration interval	10
2.14 — Straight pipe required following any fitting before venturi meter in diameters of pipe	26
2.15 — Straight pipe required following any fitting before nozzle or orifice plate meter in diameters of pipe.	26
2.16 — Straight pipe required following downstream pressure tap of a nozzle or orifice plate meter before any fitting in diameters of pipe.	27