



Net Positive Suction Head (NPSH) Worksheet

Complete the information on the worksheet to determine if NPSH(a), net positive suction head available, is greater than NPSH(r), net positive suction head required. If NPSH(r) is greater or equal to NPSH(a), pump will not prime.

1. Standard atmospheric pressure adjusted for specific gravity of liquid being pumped.

33.9 ft. divided by specific gravity = _____ FT.

Note: Specific gravity (s.g.) of water is 1.0. If specific gravity is Other than 1.0, divide 33.9 by specific gravity to get maximum NPSHa

Deductions:

- A. Altitude or elevation _____ ft.
Actual elevation: _____ ft.
Refer to Table A for conversion
- B. Vapor pressure _____ ft.
Temp: _____ °F Liquid: _____
Refer to Table B for conversion
- C. Total Dynamic Suction Head: _____ ft.
Static lift _____ ft. + Friction loss _____ ft.
- D. Safety factor _____ ft.
2 ft. for water-like liquids



2. Total deductions: _____ ft. → _____ FT.

3. Net Positive Suction Head Available (NPSHa): _____ FT.
Subtract 2. From 1.

4. Net Positive Suction Head Required by pump (NPSHr): _____ FT.
Consult NPSH curves at required flow

5. Net Positive Suction Head of System: _____ FT.
Subtract 4. NPSH(r) from 3. NPSH(a). The result must be a positive number for the pump to prime and operate.

Altitude above Sea level	Reduction in ft.
0	0 Ft.
1000	1.2 Ft.
2000	2.3 Ft.
3000	3.7 Ft.
4000	4.8 Ft.
5000	6.0 Ft.
6000	6.9 Ft.
7000	8.0 Ft.
8000	9.0 Ft.

Temp.	Ft. Reduc.	Temp.	Ft. Reduc.
40	0.281	140	6.675
50	0.411	150	8.56
60	0.592	160	10.945
70	0.815	170	13.84
80	1.17	180	17.35
90	1.612	190	21.55
100	2.191	200	26.65
110	2.942	210	32.60
120	3.91	220	39.70
130	5.145		