

Piping Design Specification-Minimum Access Requirements Table (1)

Valve type		C.L Elevation Above Ground or Platforms (mm)	Minimum Access Requirements					Remarks
			Permanent Platform		Fixed Ladder	Removable Ladder (Note1)	Removable Step (Note2)	
			With Stairway	With Ladder				
1. Valves requiring frequent manipulation	≥NPS 2"	Up to 1800						
		Above 1800		O			(Note 3)	
	≤NPS 1½"	Up to 1800						
		1800 to 3000				O	O	
2. Valves not requiring frequent manipulation	Drains & Vents	Up to 1800						
		Above 1800			O	O	O	
		Up to 1800						
		1800 to 3000				O	O	
	For Spared Equipment	Up to 1800						
		Above 1800		O				
		Up to 1800						
		1800 to 3000				O	O	
	Others	Up to 1800						
		Above 1800		O			O	
		Up to 1800				O	O	O
		1800 to 3000				O	O	O
3. Valves not requiring manipulation	Up to 1800							
	Above 1800				O	O	O	
	Up to 1800				O	O	O	
	1800 to 3000				O	O	O	
4. Valves requiring quick operation during plant operation	Up to 1800							
	Above 1800	O	O				(Note 3)	
	Up to 1800							
	Above 1800	O	O				(Note 3)	
5. Battery limit valve station		Above 2100		O			(Note 3)	
6. Block valves for instrument connection		Up to 1800						
		1800 to 3600				O	O	
		Above 3600			O	O	O	
7. Check valves flanged type		Up to 3600			O	O	O	
		Above 3600		O				
		Pipe Rack						
8. Control valves		Up to 1500						
		Above 1500		O				
9. Safety valves		Up to 1500						
		Above 1500		O				
10. Motor operation valves		Above 1500		O				
11. Branch block valves on Pipe Rack Headers		N/A						
12. Unit block valves on Pipe Rack Headers		N/A		O			(Note 3)	

Tables Notes:

(1) Maximum length of movable ladders shall be considered 3.6 m.

- (2) Maximum height of movable step shall be considered 2.0 m.
- (3) Extended stem valves and chain operated valves, or extension handle of valves can be applied, if the valves of NPS 2" and larger can not be operate within the reach from the platform in accordant with Par. 4.4.
- (4) For local sampling points, which will be manipulated frequently, stair access shall be realized, if the platform is located more than 1.5m above ground.
- (5) For integral type flanged flow instruments such as variable area flow meter, positive displacement flow meter, magnetic flow meter, turbine meter, etc., permanent platform with ladder access shall be provided as a minimum access requirement.
- (6) Generally all equipment shall be accessible for operation and maintenance.