





عیب یابی در HPLC

مشکل شماره ۴ : فشار برگشتی پایین (Low back pressure)

Problem	Probable cause	Troubleshooting
Problem No. 4: Column back pressure too low		
Usual:	1. Leak.	1. Check the system for loose fittings. Check the pump for leaks, salt build up and unusual noises. If necessary, change the pump seals.
	2. Mobile phase flow interrupted or obstructed.	2. Check mobile phase level in reservoirs. Check flow throughout the system. Especially examine sample loop for obstruction or air lock. Make sure that mobile phase components are miscible and that the mobile phase is degassed.
Problem:	3. Air trapped in pump head, revealed by pressure fluctuations.	3. Disconnect tubing at column inlet and check for flow. Purge pump at high flow rate (e.g. 10 ml/min), prime system if necessary.
	4. Leak at column inlet end fitting.	4. Reconnect column and pump solvent through column. If pressure is still low check for leaks at column inlet and end fitting. in composition can affect back pressure.
	5. Air trapped elsewhere in system.	5. Disconnect column and purge system. Reconnect column. If problem still persists, flush system with 100 % methanol or isopropanol.
	6. Worn pump seal causing leaks around pump head.	6. Replace seal. If problem persists, replace piston and seal.
	7. Wrong mobile phase.	7. Check mobile phase. Check make-up of mobile phase: Even small changes in composition can affect back pressure.