

Technique	Direct	With dynamic trees	Sources
Blocking flow	$O(V^3)$	$O(VE \log V)$	[Dinitz; Sleator and Tarjan]
Network simplex	$O(V^2E)$	$O(VE \log V)$	[Dantzig; Goldfarb and Hao; Goldberg, Grigoriadis, and Tarjan]
Push-relabel (generic)	$O(V^2E)$	—	[Goldberg and Tarjan]
Push-relabel (FIFO)	$O(V^3)$	$O(V^2 \log(V^2/E))$	[Goldberg and Tarjan]
Push-relabel (highest label)	$O(V^2 \sqrt{E})$	—	[Cheriyān and Maheshwari; Tunçel]
Pseudoflow	$O(V^2E)$	$O(VE \log V)$	[Hochbaum]

Several purely combinatorial maximum-flow algorithms and their running times.