

# DraftMaster Cap



## Theory of Operation

Combining a conventional look with an advanced design, this innovative cap represent a comprehensive rethink of what a chimney cap should be. DraftMaster is not just a termination cap but it intended to work with the flue and the fireplace being one system working in sync.

Design of DraftMaster based on Bernoulli's effect, where pressure and speed of air are inversely related. Slow moving air inside of the flue has lower speed but higher static pressure while outside wind has higher speed but lower static pressure. That pressure difference appears where both streams join together and it happens near the top of the flue. Since lower pressure is outside, this effect will help the flue to draw air from the flue. It will force the air inside of chimney to move toward that opening, creating updraft. DraftMaster has two openings, one on the top and another on the bottom, so it will be twice as effective than just an open flue. However, do not think that this cap will suck all heat from your fireplace with strong wind outside; this sucking effect increases when outside wind speed increases up to ~20-25 mph and then it remains at some constant with stronger winds.

The base of the cap is designed to fit the flue, the top lid is to keep rain out, the side wall is to protect against wind and inside inverted cone is to reduce termination coefficient (resistance to air flow). Maximum performance of the DraftMaster is achieved with careful calculations and many hours of testing. All of those concepts will provide an effective updraft by the DraftMaster cap that is seen nowhere else. This chimney cap is ideal for those situations where the homeowner demands the very best.

