

POWER BLOWER

58400 series

DCD offers a unique portable Power Blower. While there are several other similar products on the market, the DCD unit offers a higher pressure output along with an excellent list of special features including:

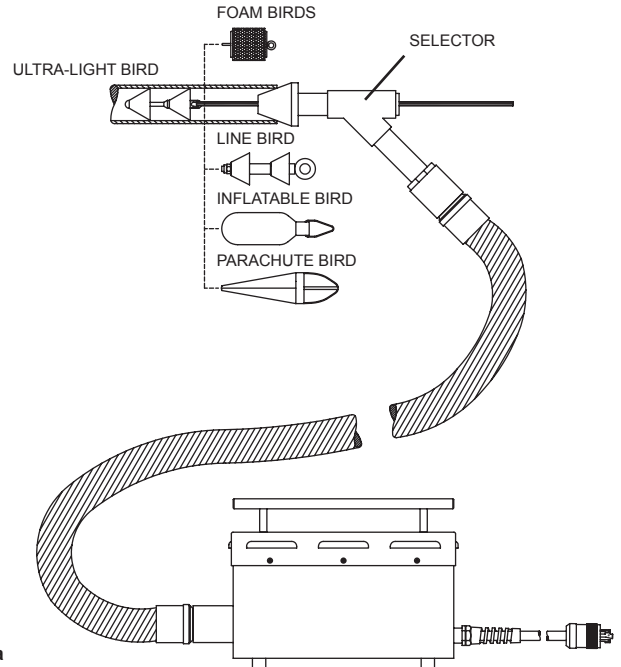
- a Stainless Steel housing fitted with a rugged powder coated steel lid and carrying handle that doubles as a coiler for storing the power cord;
- certification for outdoor use (not in rain);
- two 1.8HP heavy duty electric motors fitted with non-corrosive components and sealed bearings, each individually fused and delivering up to 225 cfm and 4 psi. The high psi rating allows longer blows, especially when under load (See below for full explanation).
- an extra heavy duty 25' long 2" hose made of crush resistant polyethylene which will stand up in temperatures from - 40 to +140 deg F.
- the blowers operate at 110V and require 30 amp source. A 220V/110 V convertor is also available.



Although other manufacturers have a higher cfm rating, that will only increase the speed of the dart – instead of taking 8 seconds to travel 500 feet, the DCD unit may take a couple of seconds more. The higher pressure rating is key because this will allow a dart carrying pull tape or twine to travel further with higher loads, even though it might take a few seconds longer. (See below for a full explanation.)

DCD also offers a full line of blowing accessories detailed on the following pages. The standard Foam Bird types are available as well as the twin coned Line Darts. An all polyurethane Ultralight Bird, not offered by other manufacturers, is available as well as a standard Inflatable type for use with product already in the duct. A new Parachute is also fast becoming a favorite. The Seal-off units are sized to fit ducting up to 6" and the handle is fitted with a selector for different twine or pulling tape sizes.

Part No.	Description
58400-100	POWER BLOWER - 110V
58400-110	POWER BLOWER - c/w Seal-Offs for 1/2" to 6" Duct and Hose 2" dia. X 25 ft. long. 110V, includes 30 Amp twist plug.
58400-201	VOLTAGE CONVERTOR – to convert 220V power to 110V. This allows the standard 110V Line Blower to be used in countries where 220V is standard supply.



*Understanding Blower Performance

The output of a blower is usually specified in terms of (i) its **flow rate** (cfm), and (ii) its **pressure** (psi). The flow rate determines how fast the blower can move a projectile, and the pressure determines how much load the projectile can pull and how far it can pull it.

When a blower is running with an unrestricted outlet, it will produce its maximum specified flow rate because there is no restriction on the outlet and the blower is working against zero psi backpressure.

If the blower is attached to a short length of empty conduit, the air being forced in by the blower tries to move all of the air in the conduit and push it out of the other end. The friction created by the air moving through the conduit causes a backpressure which the blower must overcome. As the blower works against this backpressure, its flow rate drops.

Therefore a blower can never produce its maximum specified flow rate in a practical application due to air friction in the duct.

As the length of conduit increases, friction increases, backpressure increases, and flow rate decreases. If the conduit is long enough, the backpressure will increase to a point at which it equals the maximum pressure that the blower can generate, and the flow rate will be zero.

When a projectile with a line attached is inserted into the conduit, it prevents the air from moving along the conduit. As more air is added behind the projectile, the backpressure rises until it creates just enough force on the projectile to overcome the drag and it begins to move along the conduit. Therefore **the drag creates the backpressure, which, in turn, determines the blower flow rate and ultimately the speed of the projectile.**

As the projectile moves down the conduit, the drag force increases because of the weight and friction of the line being pulled is increasing. This causes the backpressure to increase, the blower's flow rate to decrease, and the speed of the projectile to decrease. At some distance, the backpressure increases to equal the maximum pressure that the blower can develop, and the projectile will stall.

Because only blowing pressure can overcome backpressure, a blower with higher blowing pressure capability will ultimately blow a given projectile a greater distance.

Web Site: www.dcdesign.com
E-mail: sales@dcdesign.com

Toll Free: 1-888-SWIVELS (794-8357)
Tel: 604-232-4445
Fax: 604-232-4446

LINE BLOWING

DCD