

## POWER BLOWER

### 58400 SERIES

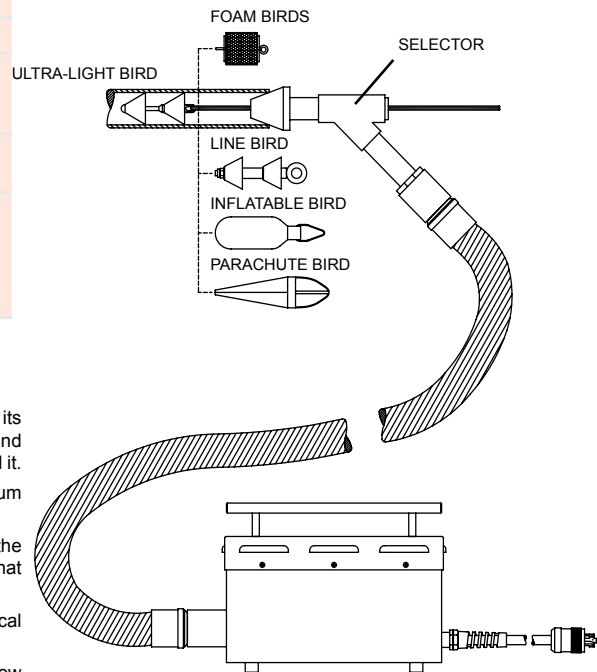
The DCD Power Blower is unique: a portable unit with twin, parallel motors to provide the maximum pressure available in this class of line blowers: up to 30% higher. While there are several other similar products on the market, the DCD unit offers an excellent list of special features including:

- 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
- National 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. Run a single motor when that's all you need, or both when there's a 30A breaker available.
- A heavy-duty 2" hose made of crush resistant polyethylene, 25' long, 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 voltage convertor and a plug adapter are also available.

Although other manufacturers have a higher cfm rating, that will only increase the speed of the dart. 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, available as kits or individually to build your own toolbox. DCD Line Blowing products feature a range of innovations to suit your application and go farther.

Part No.	Description
<b>58400-100</b>	POWER BLOWER 110V
<b>58400-110</b>	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
<b>58400-200</b>	POWER BLOWER - 58400-100 WITH VOLTAGE CONVERTER 58400-201
<b>58400-201</b>	VOLTAGE CONVERTER - TO CONVERT 220V POWER TO 110V. THIS ALLOWS THE STANDARD 110V LINE BLOWER TO BE USED IN COUNTRIES WHERE 220V IS STANDARD SUPPLY
<b>58400-220</b>	POWER BLOWER - 58400-100, VOLTAGE CONVERTER - 58400-201, SEAL OFFS FOR 1/2" TO 6" DUCT AND HOSE 2" DIA. X 25 FT LONG
<b>58400-300</b>	PIGTAIL ADAPTER CORD - TWIST CONNECTOR TO STRAIGHT PLUG. TO ADAPT THE POWER BLOWER 30A TWIST PLUG TO A STANDARD 110V WALL SOCKET. NOTE: A STANDARD 15A WALL SOCKET WILL ONLY POWER ONE MOTOR UNLESS YOU HAVE A 30A BREAKER.



### 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 resistance against it.

If the blower is attached to a length of empty conduit, the blower has to move all the air in the conduit to push any through. Friction against the conduit wall will resist that movement. As the blower works against this backpressure, its flow rate drops.

Therefore a blower can never produce its maximum advertised 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. At some point, 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 is inserted, it blocks the conduit. As more air is pushed in behind the projectile, the backpressure rises until it exceeds the projectile's 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. At some distance, the increasing backpressure equals 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 go farther. The DCD Power Blower is designed around twin, high-pressure motors to go farther. More pressure, more distance.