

Carter-Day Duo-Aspirators



**NEW —
OPTIONAL
VIBRATING
FEEDER
AVAILABLE
FOR GENTLE
PRODUCT
HANDLING**

**FOR REFINED, CRITICAL ASPIRATIONS
CLOSED/OPEN CIRCUITS**

Models 24" - 36" - 48" - 60" - 72"

C-D

CARTER-DAY COMPANY

500 73rd Ave., N.E., Minneapolis, MN 55432
612/571-1000 Telex: 201669 Cable: CAMACO

S-D

SIMON-DAY LTD

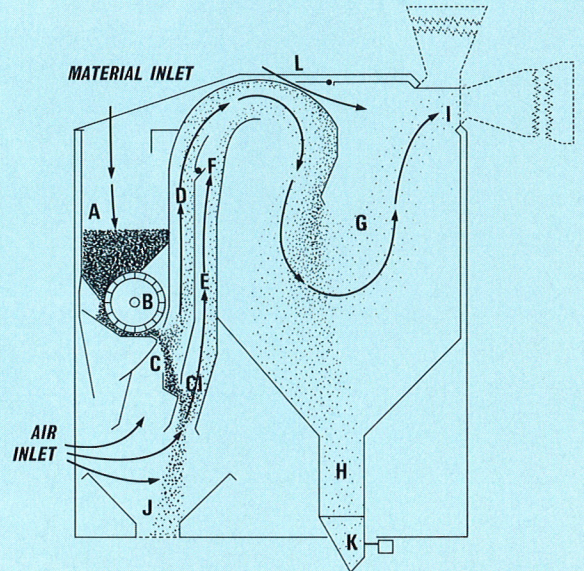
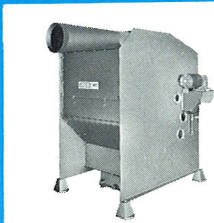
Box 488, Winnipeg, Manitoba R3C2J6
Phone: 204/786-5781

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CARTER-DAY DUO-ASPIRATORS

For Refined Aspiration

OPEN CIRCUIT Model 36"

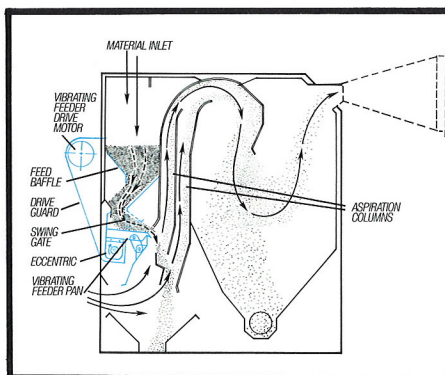


REDESIGNED AIR SYSTEM

MATERIAL AND AIR FLOW

The new 36" Carter Duo-Aspirator Open Circuit models have several improved features over previous units; all designed to provide increased efficiency and simpler operation with less maintenance. A major change is the double air duct (or double air leg) permitting two-stage aspiration for greater efficiency. Air concentration in first duct can be adjusted to increase or decrease air flow; allowing second duct for finish aspiration. Conveyors have been eliminated. Gravity discharge, with weighted gates for seals, replace conveyors. A new drive assembly with motorized reducers has eliminated all transmissions and idlers. Feed roll is only revolving shaft in machine with optional feed roll speed selector of 5:35RPM or 10RPM. Adjustable (within 90 degrees) exhaust outlet can be connected to plant's present dust control or separate fan.

In the 36" Open Circuit model material to be aspirated enters the machine through hopper (A) where feed roll (B) distributes the material evenly into the air stream at points (C) and (C1) (Double air duct system). Heavy aspirated material is discharged through outlet (J). Lighter materials are carried up the double air legs (D & E) where air flow concentration is adjusted (from outside) at (F); to increase or decrease air volume in the aspirating chamber (G). Heavier materials drop into hopper (H) and discharge by gravity through weighted gate seal (K). Dust and lighter materials are carried in air stream and discharged through exhaust outlet (I) to plant's dust control on separate fan. The machine's total volume of aspirating air passing through material is controlled by adjustable by-pass (L).



NEW — OPTIONAL VIBRATING FEEDER

A new variable speed vibrating feeder is available for all Open and Closed Circuit Carter-Day Duo-Aspirators; new and existing. This unit eliminates the use of a feed roll in the material inlet hopper. The vibrating feeder gently distributes the product evenly into the air streams of the double air duct system for aspiration. This unit permits more exact control of the rate of feed, and a more positive rate of feed flow. Vibrating feeder assures gentle handling of friable products and such other products as soybean seeds, edible bean seeds and peanuts.

SPECIFICATIONS

SIZE	CAPACITY* ON WHEAT BUSHELS PER HOUR	OVERALL DIMENSIONS			H.P. MOTOR REQUIRED	FAN SIZE	DIAMETER OF STANDARD DESIGN CYCLONE DUST COLLECTOR REQUIRED	WEIGHT	
		WIDTH	LENGTH	HEIGHT				NET	GROSS
36"	300 - 450	50 3/4"	54"	68"	1/3	No. 915	REFER TO FACTORY	630	750

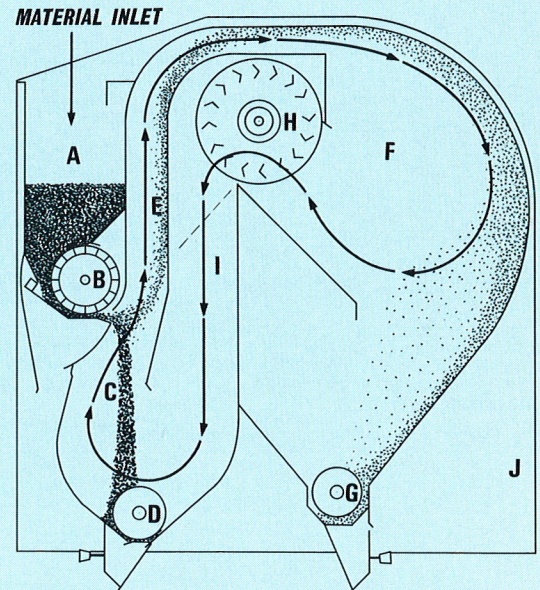
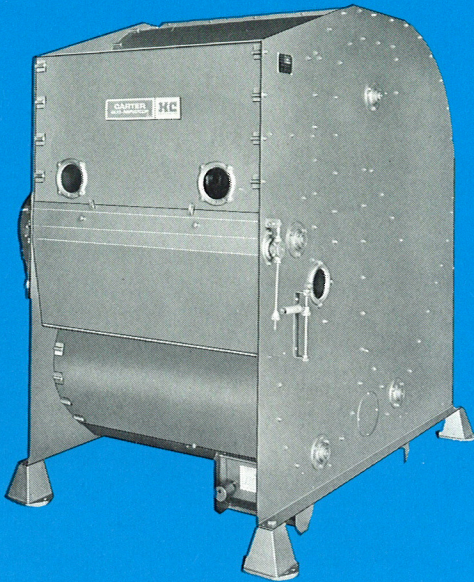
* Capacities are based upon the handling of wheat weighing 60 pounds per bushel or 48 pounds per cubic foot. Other free-flowing granular materials are commonly handled at approximately the same capacities by volume.

CARTER-DAY DUO-ASPIRATORS

For Critical Aspiration

CLOSED CIRCUIT

Models 24" - 36"



REDESIGNED, GREATER EFFICIENCY

The new 24" and 36" Closed Circuit Carter Duo-Aspirators have improved their efficiency for critical aspiration by the adaption of a transverse flow-through fan in its air system. Another major improvement has been a larger feed roll providing greater contact area, eliminating possibilities for material bridging above the feed roll. In these closed circuit models the air is continually moving in one direction continually recirculating under enclosed, controlled conditions. The impeller runs across the width of the machine for more uniform air flow; recirculated air moves through the fan. Amount of air foil product separation is controlled by the air control valve. Clean material discharge is at front; aspiration discharge is near the rear. Gates of both discharge points are equipped with adjustable weights; preventing air leakage into the machine. Optional air exhaust connection is available.

MATERIAL AND AIR FLOW

Material to be aspirated is fed into the machine from hopper (A), under feed roll (B) where it is evenly distributed through the air stream at (C). Heavier cleaned material is discharged by conveyor (D). Lighter drawn out material is carried up air duct (E) into the collector chamber (F) where they settle to the conveyor (G) and discharged from the machine. The air stream continues in its recirculatory course by returning back and up through the transverse fan (H) and back down through the air control valve (I) to the point of air separation (C). Simpler aspiration controls. Fan speed adjustment (J) controls air volume; faster fan operates, the more air volume and vice versa.

SPECIFICATIONS

SIZE	CAPACITY* ON WHEAT BUSHELS PER HOUR	OVERALL DIMENSIONS			H.P. MOTOR REQUIRED	R.P.M. FAN SHAFT	WEIGHT	
		WIDTH	LENGTH	HEIGHT			NET	GROSS
24"	75 - 300	39½"	62"	68"	1-1200 RPM	240/550	735	910
36"	300 - 450	51½"	62"	68"	1-1200 RPM	240/550	830	1030

* Capacities are based upon the handling of wheat weighing 60 pounds per bushel or 48 pounds per cubic foot. Other free-flowing granular materials are commonly handled at approximately the same capacities by volume.

CARTER-DAY DUO-ASPIRATORS 60" - 72" / OPEN CIRCUIT MODELS

WITH VARIABLE SPEED FEED ROLL DRIVE (4.4 to 13.5 R.P.M.)

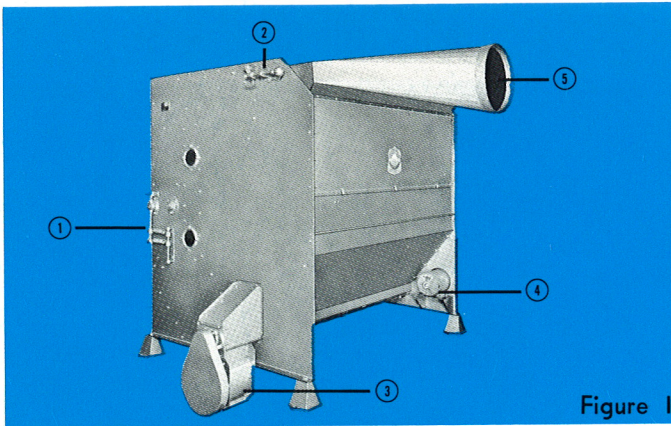


Figure 1

Figure 1 shows the 60" Open Circuit Model Duo-Aspirator at the rear and right end. Show in this view are the right end adjustment control for volume of material from feed roll (1) and quadrant for control of air (2), rotary air lock valve (3) on light materials discharge from expansion chamber, the drive motor (4). Fan connection at (5).

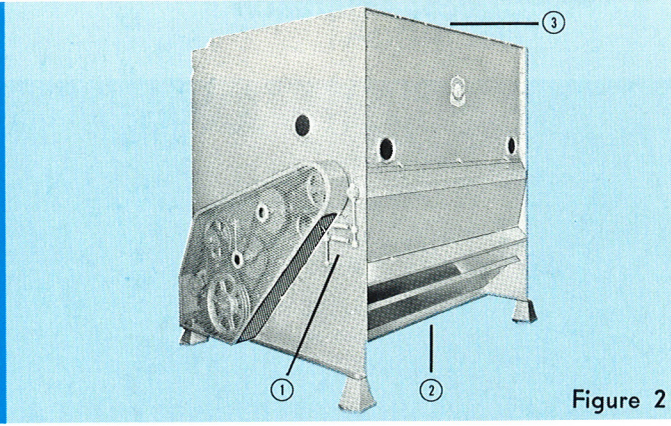


Figure 2

Figure 2 is the same Duo-Aspirator at left end and front (feed end) showing motor drive and drive to the light materials discharge conveyor shaft and feed roll. (1) is adjustment control for volume of material from feed roll. (2) is the clean material discharge. Feed inlet at (3).

Size	Capacity* on wheat Bushels per hour.	Overall Dimensions			H.P. Motor Required	R.P.M. Conveyor Shaft	C.F.M.	Fan**	Fan Exhaust Pipe	Weight	
		Width	Length	Height						Net	Gross
60"	600 - 750	79"	65½"	68"	½ - 1200 R.P.M.	63 to 194	3750	#915	17"	1300#	1820#
72"	750 - 900	91"	65½"	68"	½ - 1200 R.P.M.	63 to 194	4500	#915	18"	1500#	2030#

* Capacities are based on the handling of wheat, which weighs 60 pounds per bushel or 48 pounds per cubic foot. Other free-flowing granular materials are commonly handled at approximately the same capacities by volume.

** Use next largest size fan for seed corn applications.

CARTER-DAY DUO-ASPIRATORS 48" - 60" - 72" / CLOSED CIRCUIT MODELS

WITH OPTIONAL VARIABLE SPEED FEED ROLL DRIVE (5 to 14 R.P.M.)

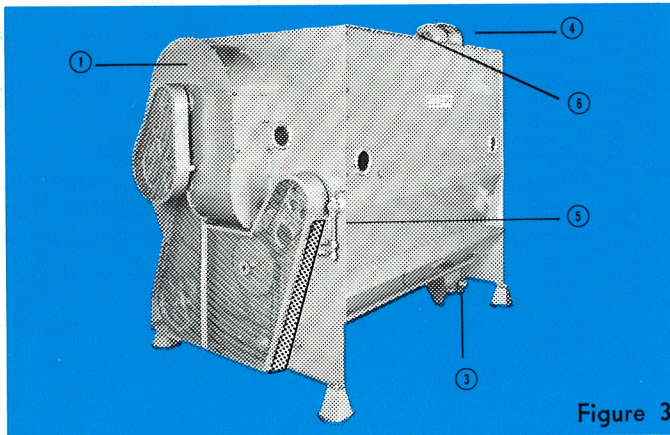


Figure 3

To equalize air movement through the material aspirated, these larger sized Closed Circuit Models are equipped with two fans, one at each end (1) if Figures 3 and 4. Closed circuit models include two screw conveyors; one to bring clean material to discharge side (2) in Figure 4 another conveyor to bring air liftings material to aspiration discharge (3) in Figures 3 and 4. These conveyors are also mean added efficiency in the settling chamber by creating better air seals. Both

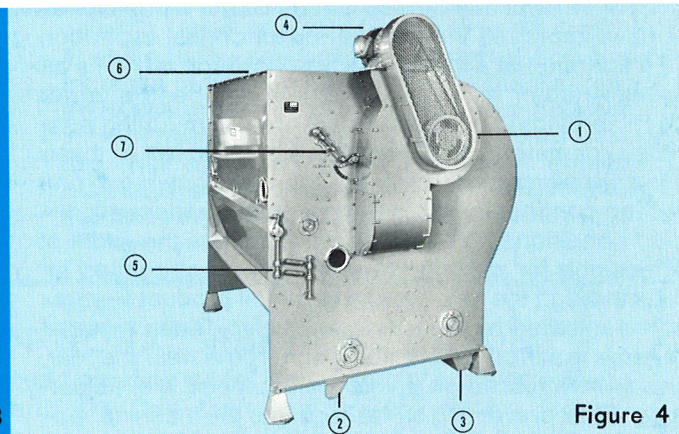


Figure 4

gates to clean material discharge (2) and aspiration discharge (3) are equipped with adjustable weights to prevent air leakage. Drive motor is located at (4). Tension volume controls (5) are located near front of machine for controlling material flow entering at top of machine at (6) feed inlet. The screw regulator (7) located near the return air duct controls the volume of air circulated within the machine. Optional air exhaust connection is available for all models.

Size	Capacity* on wheat Bushels per hour.	Overall Dimensions			H.P. Motor Required	R.P.M. Fan Shaft	Weights	
		Width	Length	Height			Net	Gross
48"	450 - 600	81"	62"	78½"	2 - 1800 R.P.M.	600	1100#	1670#
60"	600 - 750	93"	62"	78½"	2 - 1800 R.P.M.	650	1300#	1820#
72"	750 - 900	105"	62"	78½"	2 - 1800 R.P.M.	700	1500#	2030#

* Capacities are based on the handling of wheat, which weighs 60 pounds per bushel or 48 pounds per cubic foot. Other free-flowing granular materials are commonly handled at approximately the same capacities by volume.



CARTER-DAY INTERNATIONAL INC.

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C-D

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