

# CARTER DAY

PRODUCT FLOW CONFIGURATION

# CARTER DAY

No. 3SI

U n i f l o w

The No. 3SI High capacity inlet and 6" liftings trough insures maximum utilization of the cylinder separation capacity

The Dynamic Floating Inlet Seal insures sealing contact through out seal life.

Optional heavy gauge spouting kits are available for a number of machine stacking configurations featuring optional feed hoppers and inlet flow control/shut-off gates.



Wheat bph/mt/hr	Oats bph/mt/hr	Barley bph/mt/hr	Seed Corn bph/mt/hr	Sunflower lb/mt/hr	White Rice lb/mt/hr	Alfalfa lb/mt/hr
60-200 1.6-5.4	50-125bph .7-1.8	50-160 1.1-3.5	45-115 1.1-2.9	1600-3000 .7-1.3	1500-400 .7-1.8	700-1000 .3-.5

MODEL	Height	Length	Width	Net Weight	Motor Requirement
No. 3SI	33"	115"	27"	703 lbs.	.5 H.P.
No. 3SI #9Pyramid	66"	117"	53"	2090 lbs.	.5 H.P. Qty 3

Complete laboratory service is at your disposal. Carter Day's facility enables us to test your unique product sample in laboratory or full size equipment to aid in determining the right machine for your application. We invite you to participate in tests conducted at our facility in Minneapolis, Minnesota, USA.



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 The Name in Grain Processing & Handling



# No. 3SI UNI-FLOW CYLINDER SEPARATOR

## CARTER DAY ADVANTAGE VERSATILE DESIGN

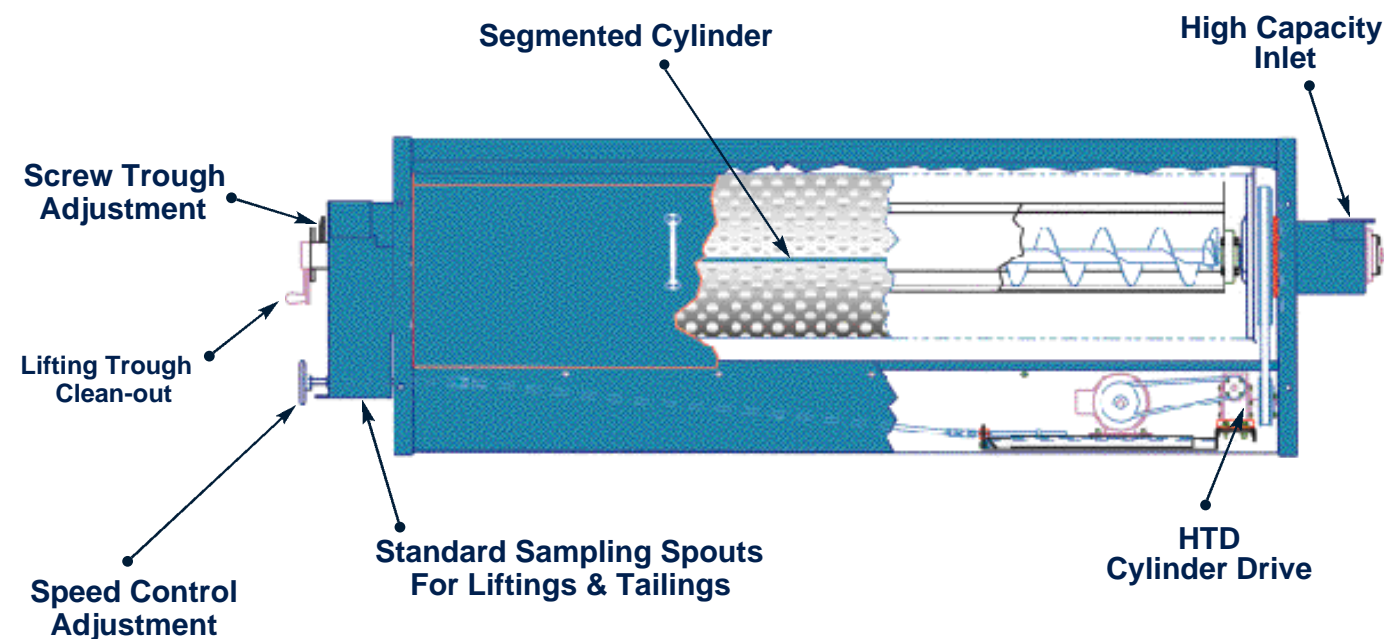
Carter Day has been manufacturing quality processing equipment for over 100 years. We continue this tradition of quality equipment with the No. 3SI Uni-Flow.

The Carter Day No. 3SI has the efficiency and capacity for virtually any length separation application involving cereal grains and other free flowing granular materials. The No. 3SI may be used independently or arranged in stacks of 2 or 3 high in various flow arrangements to meet higher capacity requirements or provide multiple separations.

High Separating capacity and efficiency is obtained from the No. 3SI 17" diameter, 90" long cylinder. A wide variety of cylinder sizes are available to meet your processing needs, from very small indents used for sesame to large indents used for almonds.

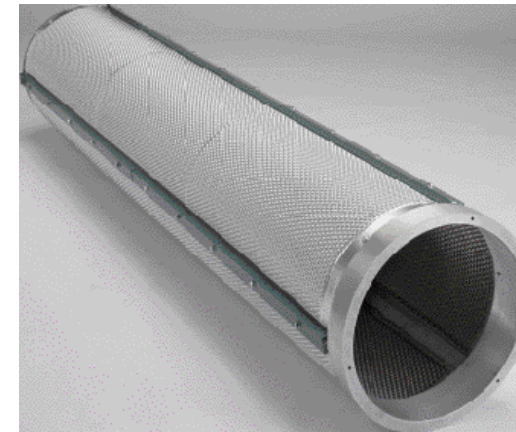
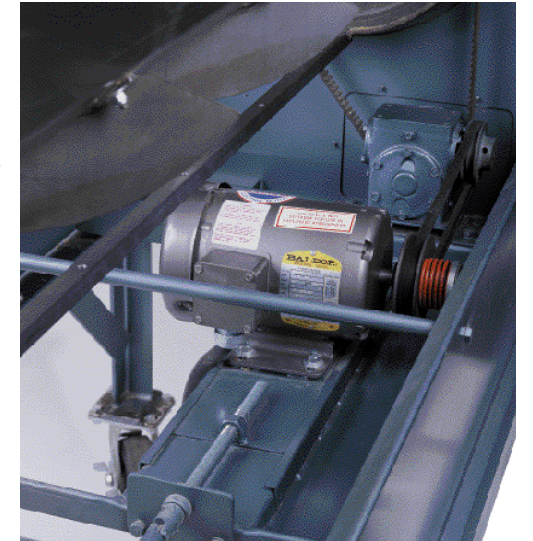
### Principles of Operation

The indented cylinder separator relies upon centrifugal force. The speed of the cylinder holds the particle in the indent, lifting it out of the mass until the indent is inverted to the point where gravity causes the particle to fall out of the indent. The particle dropping from the indent falls into the auger conveying trough. The angle or tilt of the catch trough must be adjusted to obtain the desired "cut point" there by catching the small particles as they drop out of the indents but not permitting the longer particles to ride up the rising side of the cylinder and fall into the trough. To make adjustment on the "cut point" of the separation, a trough tilt adjustment is used which enables you to define the degree of separation that is required. A screw conveyor then discharges the short lifted material separate from the tailed long material. The amount of product which can be length separated depends on the number of pockets coming in contact with the product.



No. 3SI  
Uni-Flow

The No. 3SI variable speed HTD drive system consist of a spring loaded V belt sheave on the motor. The rotation speed of the cylinder may be changed by the external cylinder speed adjustment wheel which slides the motor base changing the input speed to the worm gear reducer which changes the speed of cylinder.



The Segmented Cylinder consist of three equal segments. These segments are joined together by three solid bars which are attached to the ends of the cylinder assembly. The folded edges of the shell segments nest over these bars and are clamped in place with a clamping channel which provides a secure leakproof joint. The segmented cylinder design increases clean-out capabilities and minimizes cylinder removal downtime and maintenance.

The screw trough adjustment provides extremely close settings of the separation edge. The liftings trough can be released from the settings to allow for quick clean-out without disturbing the settings.

The adjustable retarder system improves separation results by controlling the amount of product maintained in the cylinder. The adjustable retarder can be positioned out of the product flow when it is not required.

