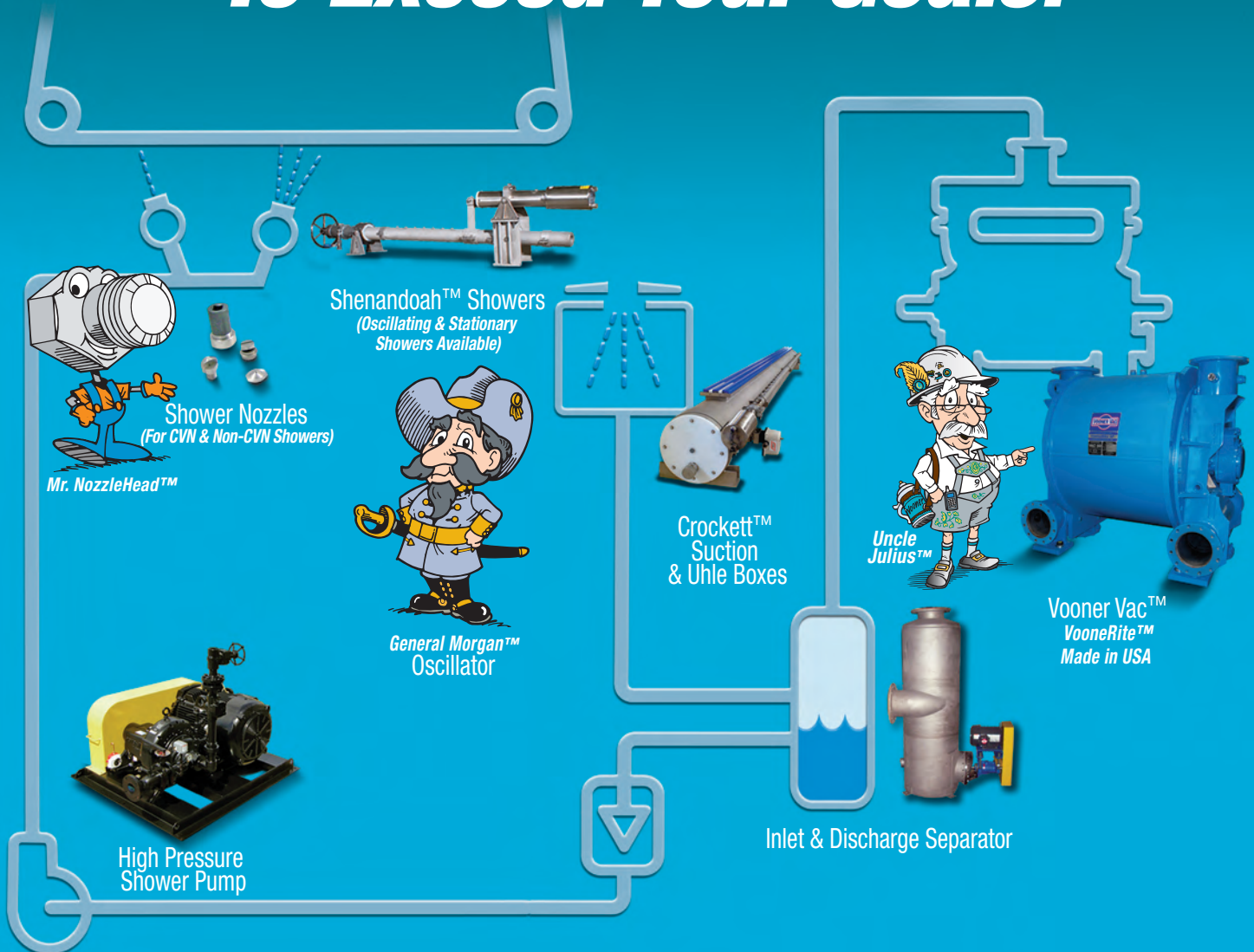


# Over 30 Years of Paper Machinery Experience To Exceed Your Goals.

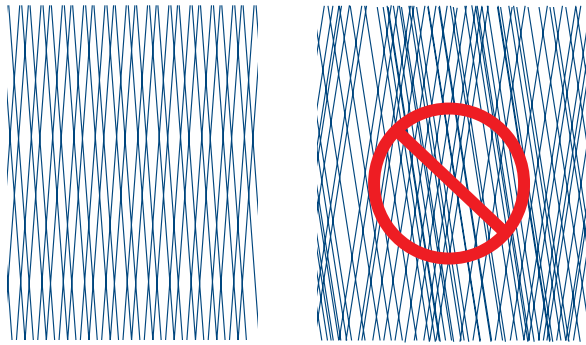


Vooner FloGard, dba CVN Vooner Paper Machinery has provided fabric conditioning, dewatering components and systems over 30 years and are manufactured by hard working Americans in the USA. Our long term, low cost vacuum pumps for paper mills are tested to HEI standards. Contact us to see how we can work together and help you exceed your goals.

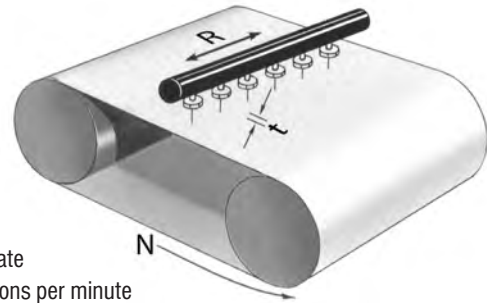


P.O. Box 129 • Greenville TN 37744 USA  
475 T. Elmer Cox Drive • Greenville, TN 37743 USA  
Phone: 423-638-2211 • Fax: 423-638-8805  
info@cvnvooner.com • www.cvnvooner.com

# Complete Coverage Cleaning (CCC), Developed by CVN Vooner in 1981



The CVN Way  
The Other Way  
After 100 revolutions of the fabric



R = Stroke rate  
N = Revolutions per minute  
t = Nozzle coverage

## For Fabric CCC

MS	machine speed of paper machine	ft/min
FW	fabric width	ft
L	loop length of fabric	ft
N	fabric revolutions per minute, $N=MS/L$	rev/min
t	traversed coverage width of one nozzle per fabric revolution	inches
S	number of spray nozzles over width	

## For the Oscillator

P	minimum stroke length; $FW/S$	inches
R	stroke rate of oscillator; $R=MS/L \times 2xt$ , or $N \times t$	inches/min
T	time for CCC with S, number of nozzles; $T = FW / (S \times R)$	minutes

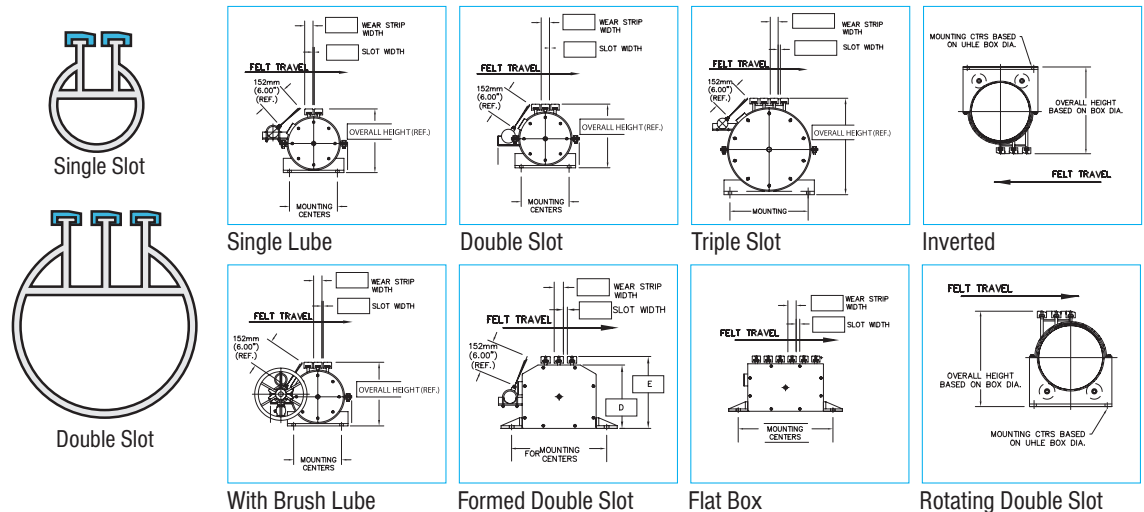
## For Roll CCC

MS	machine speed of paper machine	ft/min
RW	roll width	ft
C	circumference of roll	ft
N	roll revolutions per minute, $N=MS/C$	rev/min
t	traversed coverage width of one nozzle per roll revolution	inches
S	number of spray nozzles over width	

## For the Oscillator

P	stroke length; $RW/S$	inches
R	stroke rate of oscillator; $R=MS/C \times 2xt$ , or $N \times 2xt$	inches/min
T	time for CCC with S, number of nozzles; $T = RW / (S \times A)$	minutes

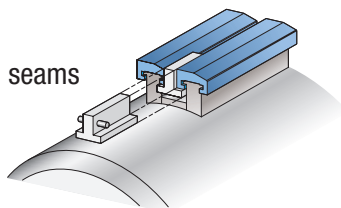
# Crockett™ Suction and Uhle Boxes



# Wear Strips and Covers for Vacuum Slots of Crockett™ Boxes

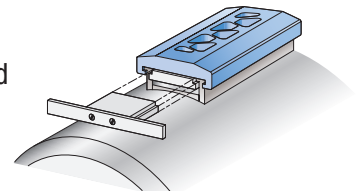
## Felt-Saver™

- Beveled front edge reduces impact and wear on fabrics and seams
- Beveled front edge improves lubrication from lube shower
- For single or up to five single slots on a box
- UHMW or ceramic filled



## Seam-Saver®

- Beveled front edge reduces impact and wear on fabrics and seams
- Beveled front edge improves lubrication from lube shower
- Single or double row cover for a box
- For applications when the required width for one slot causes wear on the fabric from dragging the fabric down into the slot
- Requires less vacuum air volume than herringbone, saves energy
- UHMW or ceramic filled



## Shenandoah™ Showers

### Standard options available with all CVN Oscillators

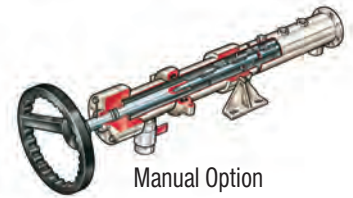
- “Complete Coverage Cleaning” can be achieved by setting shower speed to relate to paper machine fabric or roll speed
- Schedule 40 316L Stainless steel construction
- Fabric protection from a control panel with an “on/off” control and motion sensing (proximity switch) to shut off high pressure shower water in case of paper machine stop or oscillator stop
- DCS interface for automatic control
- Installation conversion kits to replace any brand

### Automated Brush Rotation

Highly recommended to keep nozzles clean and free of clogging...simple and reliable...programmable automatic rotation for consistent 1-12 hours between cleaning and prevent hardened buildup...random operator initiated cleaning possible.



Automated Brush Rotation System



Manual Option

## CVN Vooner Oscillators

### SRA-5000™

High Reliability...three balls in tracks for mechanical reversing... can oscillate a shower up to 500 inches wide (12.7m)...uses a low speed AC motor and planetary gear drive... fixed speed and variable speed options...standard stroke lengths 5, 6, 8, 9, 10 and 12 inches (127, 152, 203, 229, 254, and 305mm)...internal proximity switch provides automatic felt/fabric protection



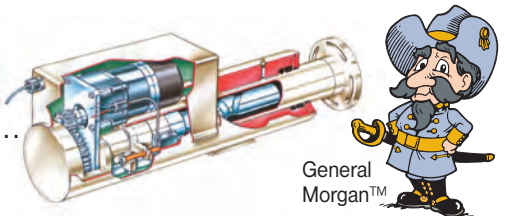
### Dolphin™ (formerly SRA1200)

Three balls in tracks for mechanical reversing...lightweight and economical...ideal for 2 to 4 inch pipe diameter showers (50 to 100mm)...ideal driver where machine speed tracking control of stroke rate is not required...designed for fabric width of up to 278 inches (7 meters)... fixed or variable speed with stroke lengths of 6 inches (152mm) or 12 inches (305mm).



### General Morgan™ (formerly SRA2000)

CVN System's original three ball reverser introduced in 1981...industry standard of “Complete Coverage Cleaning”...control panel to set shower speed to paper machine fabric or roll speed...high reliability with thousands still running throughout the world... rebuild and swap program by CVN...powered by Direct Current, DC motor for variable speed. Fixed mechanical stroke lengths.



General Morgan™

## Accessories For Showers and Actuators

CVN Vooner Gimble Mount™ for CVN Vooner Dolphin oscillator eliminates damaging binding load on oscillator drive shaft from misalignment of shower and oscillator.



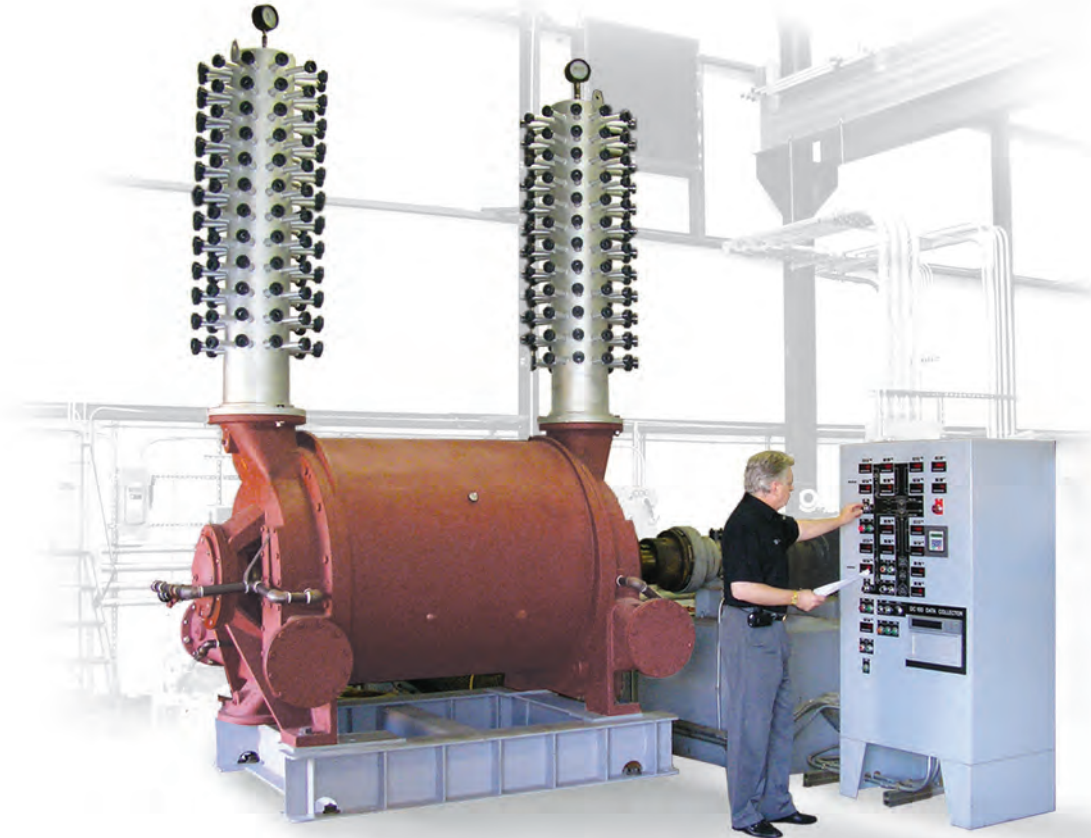
### Nozzles (Available in Greeneville, TN)



A small sample of nozzles available

Call for information for our nozzles from self cleaning to convertible. Let us help you with your nozzle needs.

# *Vooner FloGard Vacuum Pumps*



- Unparalleled customer satisfaction and quality
- Alternate solutions since 1983
- No charge inspection and witness factory performance testing to HEI standards at our facility
- Cast iron and stainless steel materials
- On site orifice plate performance testing
- Application specific custom systems capability
- Industrial duty dual port design
- Removable bearing carrier as standard

 **Vooner  
FloGard®**  
vacuum pumps



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