The Cleaning and conditioning of the wires, felts and rolls is of critical importance in paper manufacturing. Sufficient dewatering and sheet formation can only be assured if wires, felts and rolls are clean. SCAN high pressure showers guarantee efficient cleaning.

An oscillating type of shower provides continuous movement of the shower to assure complete & uniform coverage with minimal wastage. It consists of a gear motor assembly which is connected to an eccentric disc. This disc converts the rotational motion to lateral motion of the shower, thereby ensuring proper spray on the wire.

Precision nozzles ensure that the water is sprayed uniformly over the wire. The shower system is also fitted with a brush assembly which helps in proper cleaning of the shower. The brush assembly consists of set of nylon brushes and a hand wheel. They are designed in such a manner that their interference does not restrict the flow of water through the nozzles.

Oscillating showers are used in all types of applications where high-pressure water jets are required to clean paper machine fabrics or cylinders. If these showers were not oscillating, the high-pressure jet impact would otherwise damage the fabric or cylinder.
Features

1) Shower sizes: 2", 2½", 3", 4", 5"
2) Shower piping is 316/304 stainless steel (Special materials are available upon request)
3) Needle jet nozzles or flat jet nozzles.
4) Nozzle type, orifice size and spacing are carefully matched to the showers application
5) Nozzle bases are welded to the pipe
6) Brush assembly to perform cleaning operation
7) +/- 100 mm stroke length

Advantages

1) Effective, gentle and streak free cleaning of wires, felts and rolls
2) Nozzles with high quality jets
3) Nozzle flow rates in accordance with specifications
4) Minimum water consumption
5) Low energy consumption
6) Optimum operational safety and availability
7) Low maintenance and service requirements
8) Rugged in construction
9) Simple in operation
10) Operates at high pressure
11) Ideal for many papermaking application

Location:

1) Forming Wires
2) Press felts
3) Forming Rolls
4) Suction and press rolls

Calculation of cleaning time (T)

A shower that operates in accordance with the above principle cleans the entire surface (Wire, felt) within a minimum period of time
The cleaning time is calculated according to the formula :

\[ T = \frac{(L \times K)}{(V \times E)} \]

L= length of wire/ felt (m)
K = nozzle pitch (mm)
V = machine speed (m/min)
E = width of cleaned strip (mm)
Installation location of High Pressure showers

Wire cleaning

Single wires and compound wires --- clean from the running side

Double and multi layer wires – clean from the paper side.

Technical data for high pressure showers for wire cleaning

Nozzle size : 0.8, 0.9 and 1.0 mm dia
Nozzle Pitch : 2”, 4” and 8”
Distance : nozzle/wire : 4” – 6”

Water Pressure :
Upto 450 psi (higher pressure may damage the wire)

Felt Cleaning

High pressure and low pressure showers for the cleaning, conditioning and moistening of the felt are installed on the paper side in front of the felt suction boxes. The showers are usually installed in a tandem arrangement and moved by an oscillating device. The spraying jet of the high pressure shower is either directed vertically onto the felt or slightly inclined against the running direction.