

Weaving

One plant has a superior method of suppressing dust in weaving by wet methods and dust count records indicate a complete suppression of dust. It involves a water spray head mounted above the warp at the rear of the harness with a mechanical screw arrangement for constant movement of the spray head transversely to the warp. They believe it to be more effective than the system common in several plants wherein the warp is passed over wetted rolls.

It is apparently not practical to recommend 100 per cent wet weaving throughout the industry. Moreover, we are satisfied that it is practical to control dust in this operation by local exhaust, where dry weaving is considered imperative for special properties of the cloth. One of the best exhaust arrangements includes an exhaust opening directly under the warp at the rear of the harness frame with a slot exhaust opening carried by the lay beam, the latter connected to the stationary part of the exhaust system, either by flexible hose arrangement or by an all metal swivel joint.

Duct Work

The actual arrangement of duct work and exhaust fan present no unusual problems where good practice in sheet metal fabrication is followed. Two points are of sufficient importance to require emphasis. Special care should be exercised in the fabrication to avoid sharp projections on the inside that create points of lodgement for fibers. Secondly, it must be designed to provide adequate transporting velocities. Velocities below 2000 fpm, in the experience of the industry, may permit settlement of material and gradual clogging. Therefore, allowing a margin of safety, the design should provide for velocities of 3000 fpm.