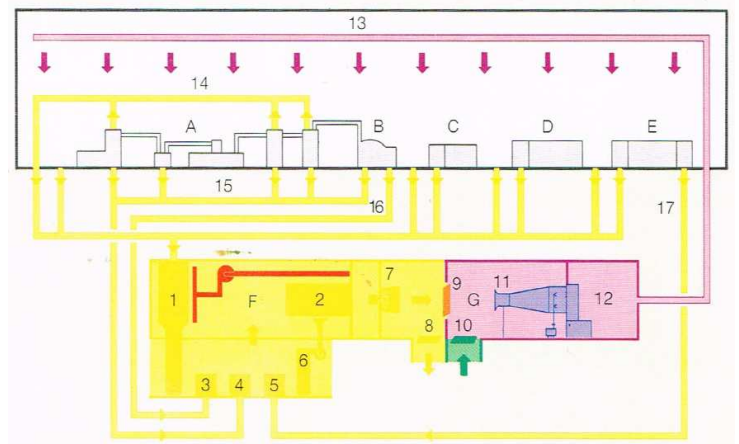


## Textil industry

### Introduction

Our company developed the whole process, from planning-engineering to the start-up (or like the mode turnkey), and maintenance. The air conditioning for the textil industry consist out of:

- Ventilation, cooling, heating, humidification and drying of the air.
- Centralized filter of dust, fibres and cleaning stations by vacuum
- Recovery and recycling of accumulated waste.
- Homogeneous distribution of airflow
- High efficient control facility
- Well balanced cost/technical requierments



Our goal is to obtain a satisfactory return, a production increase, security and construction simplicity, non-stop automatic production process 24/24, reliability, and advanced control system.

### Conventional system performance of the airconditioning

To design the air-conditioning systems, we considered all the possible dissipated heat in the room. The main source is the heat transfer of the building, the electric power transformed in heat from the engines, the heat dissipation of the operators and the light system.

In summer, the air is cooled by adiabatic cooling. In addition, the air is blown into the production room until the desired room conditions is reached. The air humidity control acts upon the waterflow of the laundry machines. This way, we achieve an economic performance of the facility, even on partial loads.

When the outdoor temperature decreases, the system will reduce the inlet of the external air and increase the recycling of the indoor air, to maintain a constant temperature in the room. The air humidity is regulated by acting on the waterflow of the washing machine. In case it is necessary, it will increase the temperature of the blown air, by heating batteries.

The obtained room temperature during the summer depends on the cooling capacity by evaporation. In tropical zones, it is always convenient to be prepared with an additional cooling system by driven air. TYSEIN, can offere you with different options.

#### Esquema de principio

- Aire exterior
- Aire impulsado
- Lavador de aire
- Aire de limpieza
- Aire recirculado
- Aire evacuado/aire de escape

- A Sala de apertura
- B Sala de cardas
- C Sala de estirado
- D Mecheras
- E Hilatura
- F Instalación de desempolvamiento
- G Instalación de climatización



## Field of applications

Industrial holdings with high content of dust, such as the textil industry and the tobacco industry, where it is necessary to clean great volumes of air (20.000-200.000 m<sup>3</sup>/h) from dust and fibres.

Field of application:

- First step of filtering and cleaning of the evacuated air from the open machines in the cotton industry and other natural fibres.
- Under some of the mentioned conditions, the FLG filters could be also used as single-filter for the same achievement. Therefore, they are suited for sanitation of the filter facilities, the basement facilities.

The filters are installed as integrated components of the air return system in the filter chambers.

Campos de aplicación:

## Specific benefits

- The air passes through the filter surface from inside to the outside, a simple and economic system. At the same time, it avoids the formation of fibers deposits in the filter chamber.
- The automatic cleaning of the surface of the filters by water spout allows the application by filter ways with high degree of separation. There is no limit of dust content for clean the air by this method.
- Free election of waste elimination. According the desired automation degree, it could incorporate in the filter, a collector sac of dust, a compactor of fibers or a transport ventilator destined to move the waste to another location (a storage or a press machine)

## Performance

To clean the air, it is introduced in a filter from above and crosses through the filter surface, from inside to outside. The fibers and the dust relatively thick will be retained inside the filter. When the filter reaches its capacity, it turns automatically around its long axis, and it cleans through a static air nozzle available at the outside. The fibers and the dust fall at the bottom and trapped inside a collector, compactor, or a ventilator to transport.



1- Suction and filter centralized system with individual regulatory and control system by machine, optimizing costs and performance.



2- Centralized cooling system with regulatory and control system. For the same devices O3 generator, lasers systems, increasing efficiency and economical profits.



3-Complete project for infrastructure and laser installations, such as industrial constructions. (Container type)