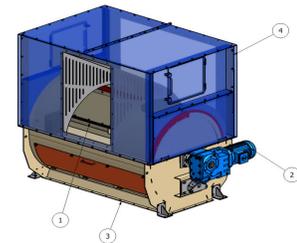


## FILM VACUUM SYSTEM (FVS)

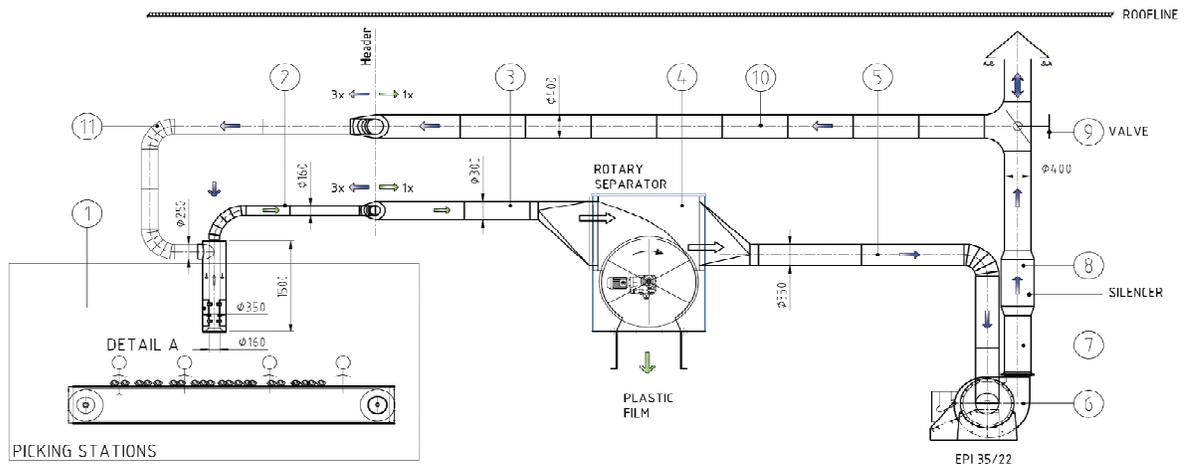


Through an internal grid in the Rotary Air Separator, the sorted material is separated from the airflow and will drop into a storage bay, a container or onto a conveyor. The remaining air volume will be (almost) 100% be redirected to the concentric suction hood in the sorting cabin. This ensures a dust free and pressure less operation.

1. Air inlet with sorted materials
2. Gearbox
3. Sorted materials outlet
4. Clean air outlet



### Typical Process Flow Diagram



- |                         |                    |
|-------------------------|--------------------|
| 1. Suction hood         | 7. Return ducting  |
| 2. Transport ducting    | 8. Silencer        |
| 3. Header ducting       | 9. Air valve       |
| 4. Rotary Air Separator | 10. Return ducting |
| 5. Suction ducting      | 11. Return ducting |
| 6. Recirculation fan    |                    |

## FILM VACUUM SYSTEM (FVS)

### General

For the manual sorting of film and light plastics Nihot has developed a unique solution which can be easily installed in new or existing sorting cabins, the *Film Vacuum System (FVS)*.

The FVS is an ideal pneumatical conveying system for transporting a manually sorted fraction, in an easy dust free operation. The necessary shipping air is recirculated, therefore no (conditioned) air is extracted out of the sorting cabin.



### Main advantages (USP)

- a closed loop pneumatic conveying system
- unique concentric ducting
- no forced outside air needed
- no conditioning of sorting cabin needed
- material can be transported directly to any preferred destination
- ergonomic quality picking
- applicable for multiple suction points
- handling of various materials i.e., aluminum cans, PET bottles, paper/cardboard
- easy to retrofit in existing sorting cabins



### Operating principle

The sorted material is manually brought to the inlet of the suction hood. Due to the concentric ducting, only material that is placed directly below the suction hood will be extracted.

When the material enters the suction hood, it will be pneumatically transported through the ducting by means of a high pressure recirculation fan. The required shipping air will be made available by means of a (double) concentric duct. By means of an exhaust/inlet control valve it is possible to balance the required air quantity from outside the building. The shipping air of each suction hood is then combined in a main header duct. In this duct the combined air including the sorted material is shipped into a Rotary Air Separator.

