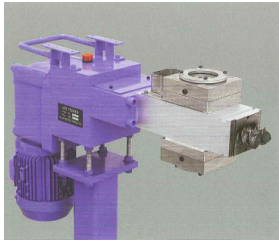


SFD Side Feeder Deaerator

Patent# 3712185



Side Feeder Deaerator:

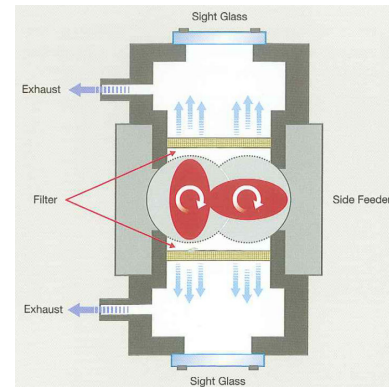
The Side Feeder with JSW DGC (De-Gassing Cylinder) is installed on the material feeding zone and is connected to a Vacuum Pump.

Air in the powder material is forcibly removed by a vacuum pump. This enables the amount of material (with less air) being conveyed to increase and, ultimately, throughput is increased.

Mechanism of SFD:

The mechanism of SFD is shown as chart on the right.

Special filters are installed in a deaerating device on the side feeder located on between the feed throat and main extruder and air is pulled out thru special filters by vacuum.

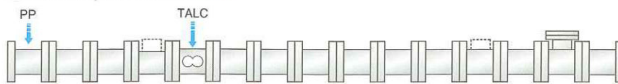


Experiments:

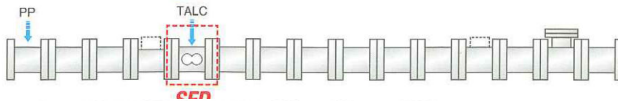
Examples for SFD application ①

Material : PP + Elastomer + TALC 30wt%
Machine : TEX44 αII-52.5BW-3V + SFD (TSF45)

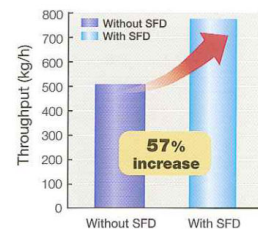
● Barrel layout without SFD



● Barrel layout with SFD



PP+Elastomer+TALC 30wt%



Throughput
57% increase

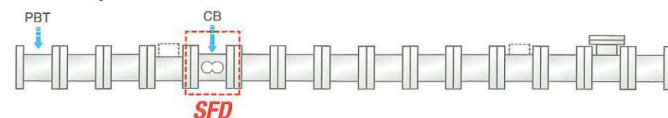
Examples for SFD application ②

Material : PBT + Carbon Black 30wt%
Machine : TEX65 αII-52.5BW-3V + SFD (TSF45)

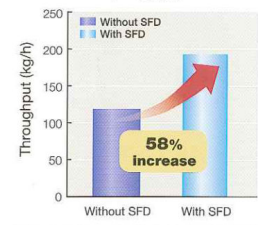
● Barrel layout without SFD



● Barrel layout with SFD



PBT+Carbon Black 30wt%
Ns=400rpm



Throughput
58% increase

For more information ;

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