



Discharge Event

Discharge event refers to the time interval in milliseconds for the discharge valve plates to open, stabilize and close. Should this time window become too short, higher valve impact velocities will result, and consequently reduced valve reliability.

Ariel has set the limit for the discharge event to be 2.7 milliseconds. Discharge event times of between 4.5 and 2.7 milliseconds should be reviewed by Ariel Valve Engineering to select proper valves for the application. Low lift valves may be necessary in this discharge event range, decreasing valve impact velocity.

Discharge event values can be increased by lowering compressor speed, decreasing the compression ratio or decreasing cylinder clearance. If discharge event values cannot be improved upon, low lift valves may be necessary in order to decrease valve impact velocity.