

POLYMER DIVERTER VALVE

Pellet Processing Systems for the Plastics Industry



The polymer diverter valve is used to direct the polymer melt from the pump or extruder to the floor, to the side, or directly into the die plate.

Your benefits

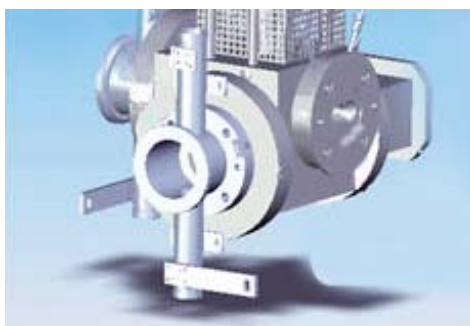
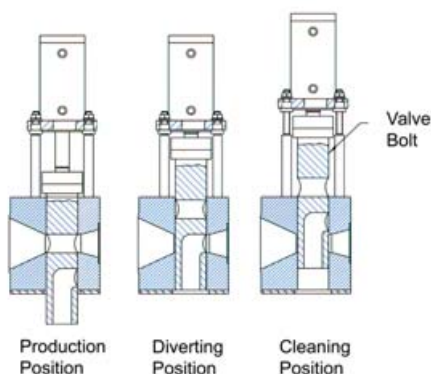
- Allows cleaner start-up
- Acts as an aid on freeze-sensitive products
- Allows controlled start-up of upstream equipment
- Facilitates continuous extrusion reaction process applications
- Simplifies electrical interlock integration between downstream and upstream equipment

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Model 7 for 4.000 kg/h pellet production



This is an indispensable function during start-up for difficult products that are sensitive to temperature fluctuation. In underwater pelletizing, an optimized volume flow per die hole must be ensured right from the start. Most of the upstream equipment responds rather slowly, e.g., ramping up of the extruder. The polymer diverter permits a controlled start-up of these upstream components until the required throughput has been attained and allows a visual control of the compounding process by the operator. The option of diverting the melt is often used for online material or color changes.

The polymer diverter valve consists of a heated housing with an integrated bolt that can be moved hydraulically. This bolt allows the melt flow to be diverted from the start-up position to production position, e.g., toward the die plate, within one second. In many cases, the inlet channel of the polymer diverter valve is adapted directly to the extruder outlet, screen changer or to the melt pump, eliminating the need for an additional intermediate adapter. The integration of a nose cone on the die plate at the outlet of the polymer diverter valve reduces the length of the flow channel and the volume of melt dead area before the die plate. This reduction of dead area prevents excessive melt flow through the die plate after extrusion has stopped so the system can be restarted with a generally clean die plate. This helps prevent the risk of polymer wrapping and increased agglomerate formation during start-up.

A mobile support stand simplifies the removal or backing away of the polymer diverter valve pulling from the extruder screw.

BIDIRECTIONAL POLYMER DIVERTER VALVE (BiPoDV)

With the bidirectional polymer diverter valve (Model BiPoDV), the melt is diverted sequentially into different directions. This means that, depending on the requirements of the job, the machine operator can work with two pelletizing heads that can be individually configured. The operator can prepare the machine for the next task and assemble, heat and tighten the ideal pelletizing tools under full production conditions. All connecting channels are freely accessible so the most recently used channels can be thoroughly cleaned. For product change, the polymer diverter valve housing is rotated and lifted into the new production position so melt flow is directed to the new fully prepared tool. The change of melt direction for the next production job can be readied in very little time and without tools.

MULTIDIRECTIONAL POLYMER DIVERTER VALVE (MdPoDV)

With the multidirectional polymer diverter valve (Gala Model MdPoDV), the melt is diverted sequentially into different directions during production. The MdPoDV is designed to allow a continuous operation of the production machine and to increase output without interruptions from a defined minimum throughput up to the maximum line throughput. The machine does not have to be stopped and no throughput-related modifications are required, so only minimum start-up waste is generated. At least one additional diverting operation is integrated, in addition to diverting to the floor or production position, allowing faster change-over between two product flow directions or the sequential operation of multiple pelletizers connected to the same diverter valve.