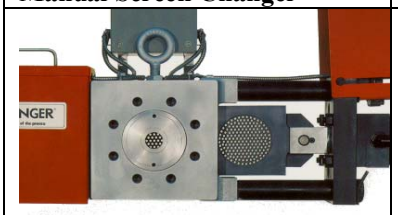
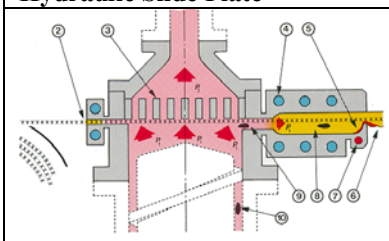
Melt Filtration System Type	Operation	Manufacturer	Typical Application	Comments
 **Manual Screen Changer**	• Discontinuous • Line Shutdown required • Most have pressure activated seals • Lever/wheel or hydraulic action	• Beringer • Dynisco • Conair • Kreyenborg • Maag • Trendelkamp • PSI	• Simple extrusion • Tube and profile • Blown film • Cast film	• Lowest cost system • $ 6,000 - $ 8,000 for 41/2” • Plate and piston types • Limited sizes up to 6”
 **Hydraulic Slide Plate**	• Semi-continuous • Pressure spike, with air entrapment • Most have pressure activated seals, few metal to metal • Hardened seals in US	• Dynisco • Conair • PSI • Maag • Gneuss	• Mainly extrusion • Film and Sheet • Big pipe & profile • Compounding • Some polymer, with candle plates	• Widely used & accepted • 4-1/2” - $15,000 end user • Package with gear pumps • Most have hard seals and encapsulated Teflon
 **Continuous Belt**	• Continuous flow • Constant pressure • Clean screen automatically moves in by time and pressure • Polymer plug seal, water cooled	• Hi-Tech • Key Filters • Autoscreen • Berlyn • Lenzing • Maag	• PP fiber & film • HDPE pipe • Foamed sheet • Compounding	• Critical extrusion without a gear pump • $27,000 to $30,000 end user for 4-1/2’ • Difficult to keep sealed • Trouble with highly contaminated materials
Single and Dual Piston 	• Continuous flow • Some pressure variations • Multiple screens in flow at a time. • Change one at time • Sealless design • De-aeration step	• PSI • Kreyenborg • Maag • Trendelkamp • Japan Steel Works • Dynisco	• Fiber production • Recycling • Sheet and pipe • Compounding • Polymer production	• High end extrusion • 4-1/2”: $20,000 for single to $40,000 for dual piston • Highest installed base for continuous; 8000 – 10000 systems worldwide
 **Multi-Segment Rotary Disc**	• Continuous flow & constant pressure • Clean screen moves by ratcheting wheel • Metal to metal seal • Tensioning bolts hold wheel between housing plates • May leak or seize, if improperly adjusted	• Gnuess • Patt Filtration • Beringer	• Fiber production • Recycling • Foam extrusion • Some polymer production • Pressure sensitive processes	• Niche oriented towards specialty applications • Engineering intensive, many custom designs • Highest price continuous, $50,000 - $60,000 for a 4-1/2” extruder
 **Large Area Candle - Duplex**	• Continuous flow • Two candle element vessels, with diverter valves • Operate one vessel at a time • Requires complete cleaning and dis-assembly to change • Hazardous and maintenance intensive • Elements costly & expensive to clean	• Maag • Memtec • Fuji • SW Filtration	• Used extensively in Nylon and PET polymer production • Fiber production • Bi-Axially oriented film production	• Used for high output and fine filtration • 100 times the screen area of typical screen changer • Wire mesh or fiber metal felt for gel filtration • Higher capital and operational cost than any screen changer • Used when a screen changer cannot be used • Simplex designs available