



## MARSHALL AND WILLIAMS PLASTICS

**PATENTED COMPRESSION ROLL  
DRAWING TECHNOLOGY** for  
*MACHINE DIRECTION ORIENTATION*

Compression Roll Drawing (CRD) is a patented machine direction orientation process whereby plastic film or sheet is simultaneously compressed and drawn (i.e. stretched). Parkinson Technologies Inc. is the worldwide exclusive licensee of this technology.

## WHY USE CRD?

### ***Enable production of low draw ratio OPP sheet***

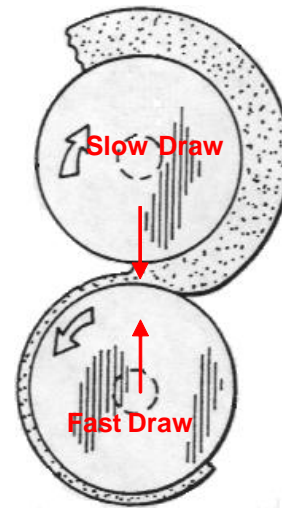
- Produce thicker oriented sheet
- Adjust degree of orientation to match needs

### ***Improve material properties***

- Clarity/haze
- Low temperature impact
- Tensile strength
- Modulus

### ***Improve processing in subsequent operations***

- Eliminate PP sagging when thermoforming
- Increase sheet rigidity



## LAB TRIALS

In collaboration with The Dow Chemical Company, Parkinson Technologies Inc recently conducted a series of trials designed to illustrate and document the advantages of using CRD technology for orienting polypropylene sheet. Materials provided by DOW™ were processed at Parkinson's Marshall and Williams Plastics Extrusion and Orientation Pilot/Lab Facility located at their corporate headquarters in Woonsocket, Rhode Island. Properties testing and thermoforming trials were conducted at The Dow Chemical Company's TS&D facilities in Midland, Michigan. For more information or to arrange lab trials using your materials, contact Parkinson Technologies at (401) 762-2100.

