FLOWSERVE CORPORATION FLUID SEALING DIVISION

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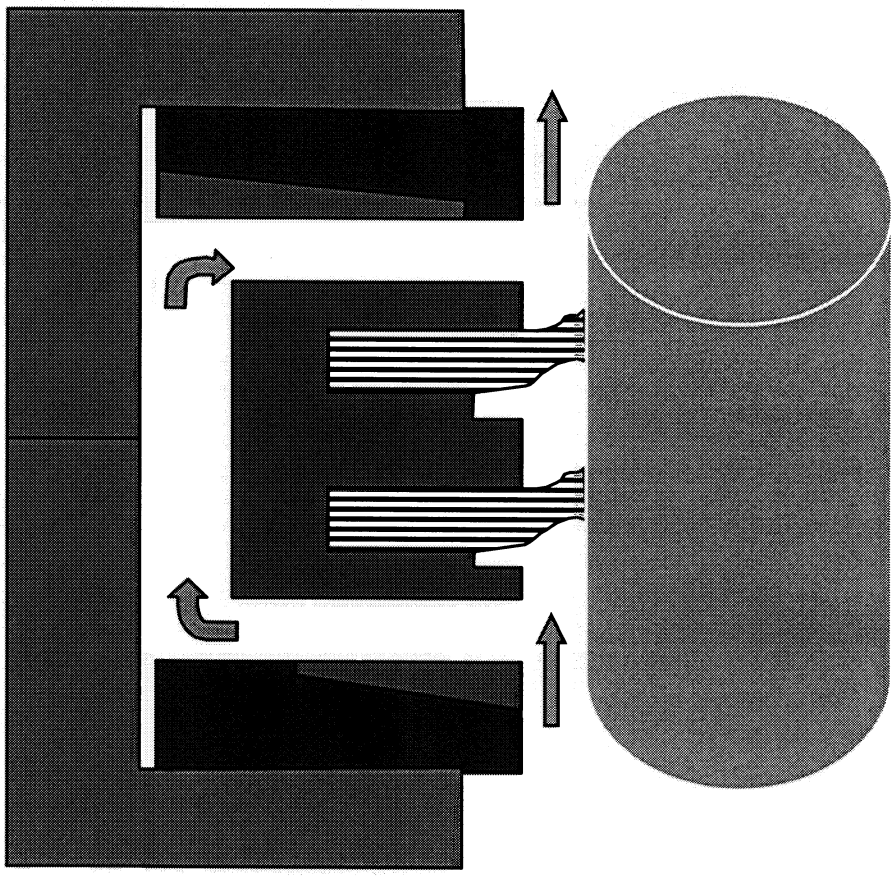
Overview

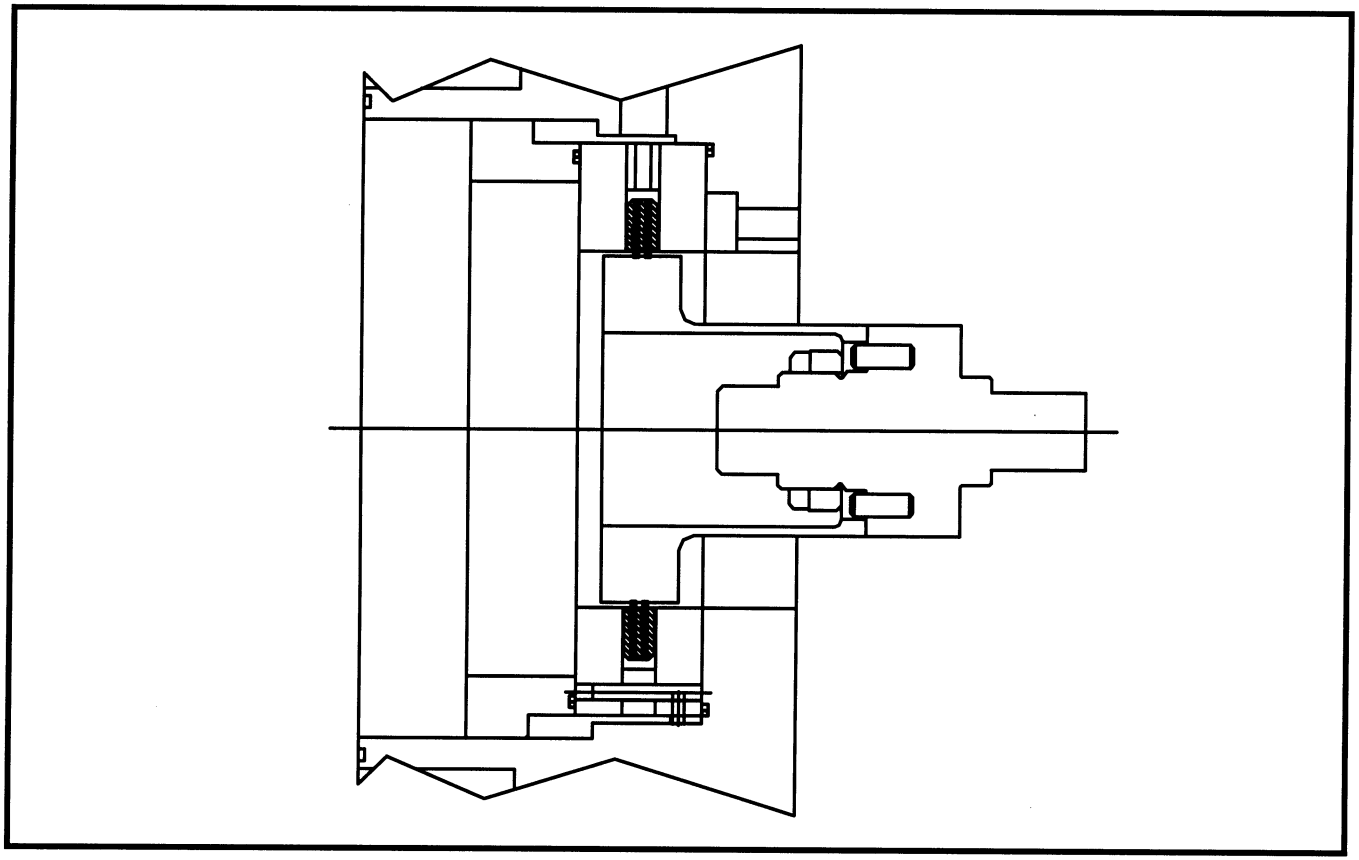
- Company Overview
  - Corporation Structure
  - Merger
  - Fluid Sealing Division
- Seal Developments
- Advanced Hybrid Brush Seal Design
  - Advantages
  - Optimization of Design
  - Performance Summary

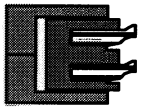


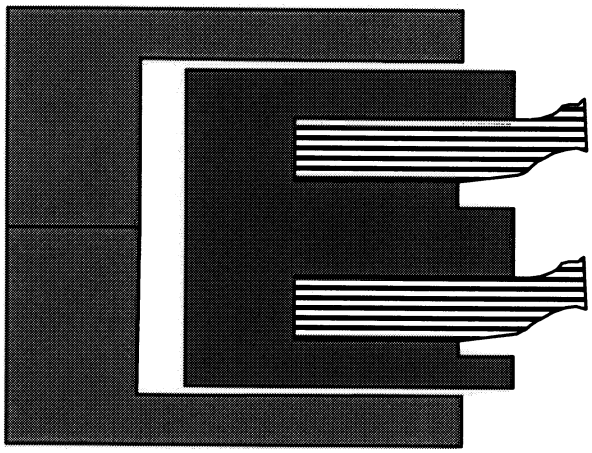
Advantages

- Accommodates large axial shaft motions
- Eliminates:
  - secondary seal hang-up
  - bristle and shaft wear
- Reduced:
  - parts,
  - axial space,
  - cost,
  - energy

PROPOSED DUAL BRUSH SEAL

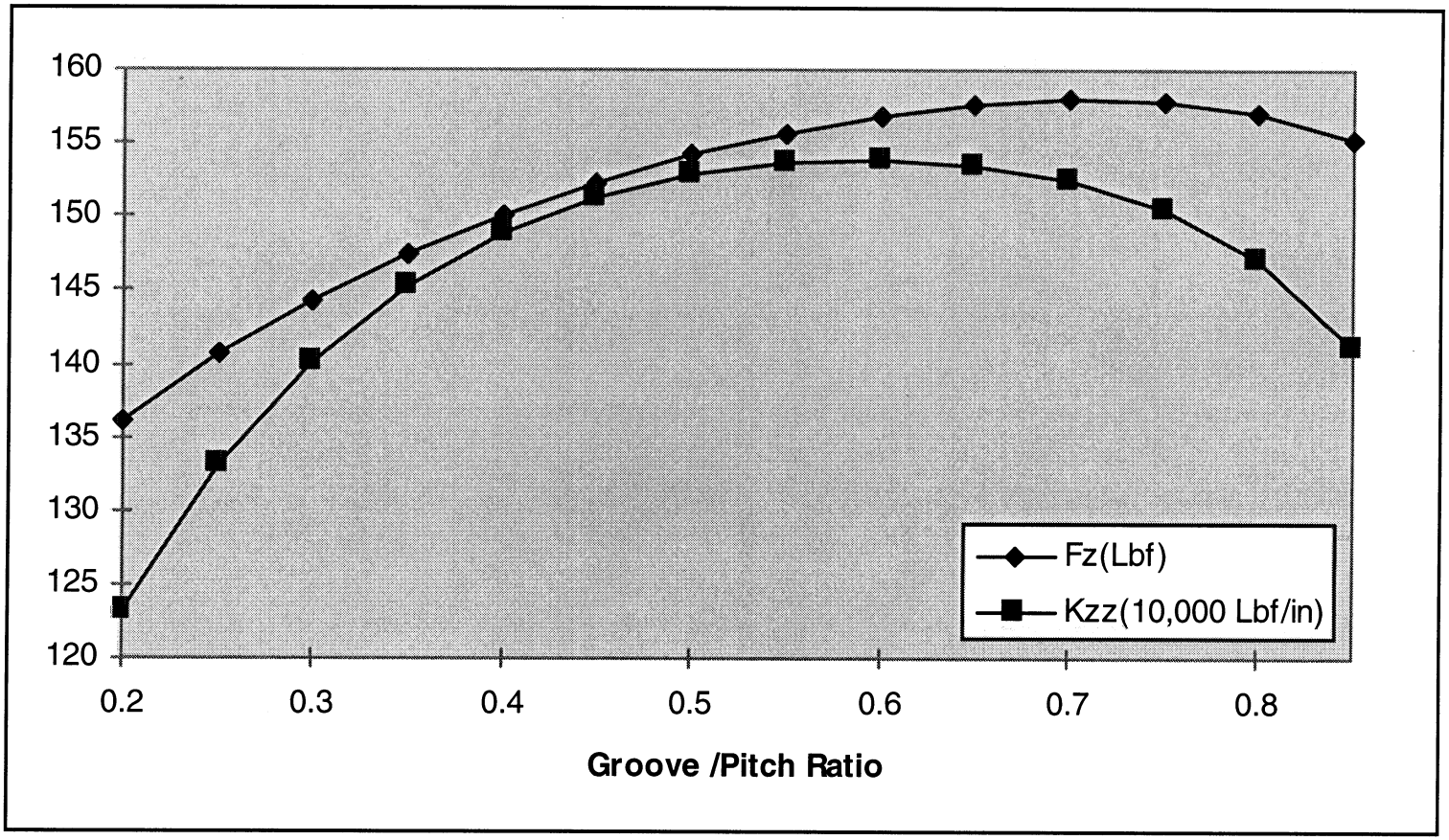




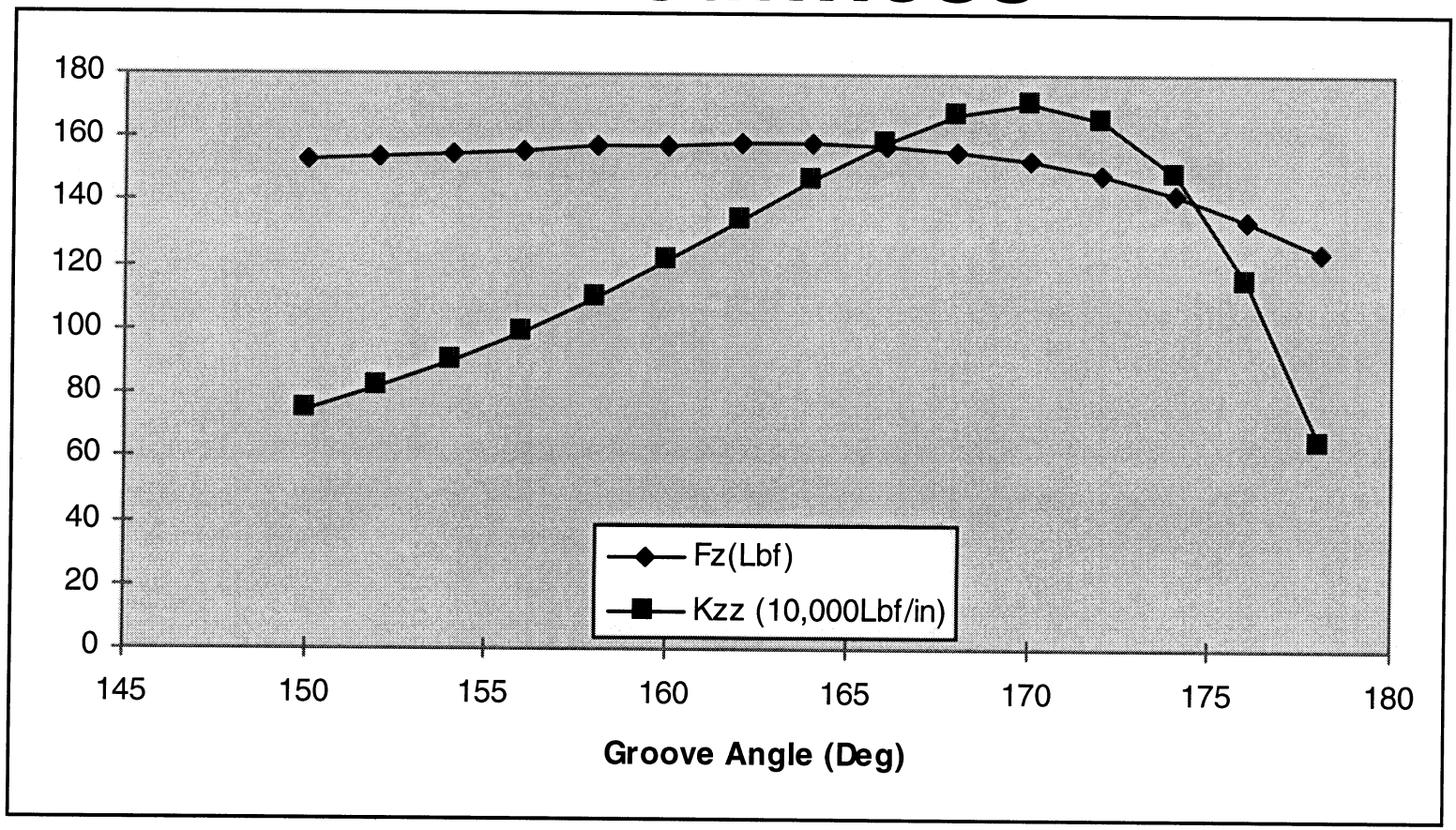


Groove width Optimization

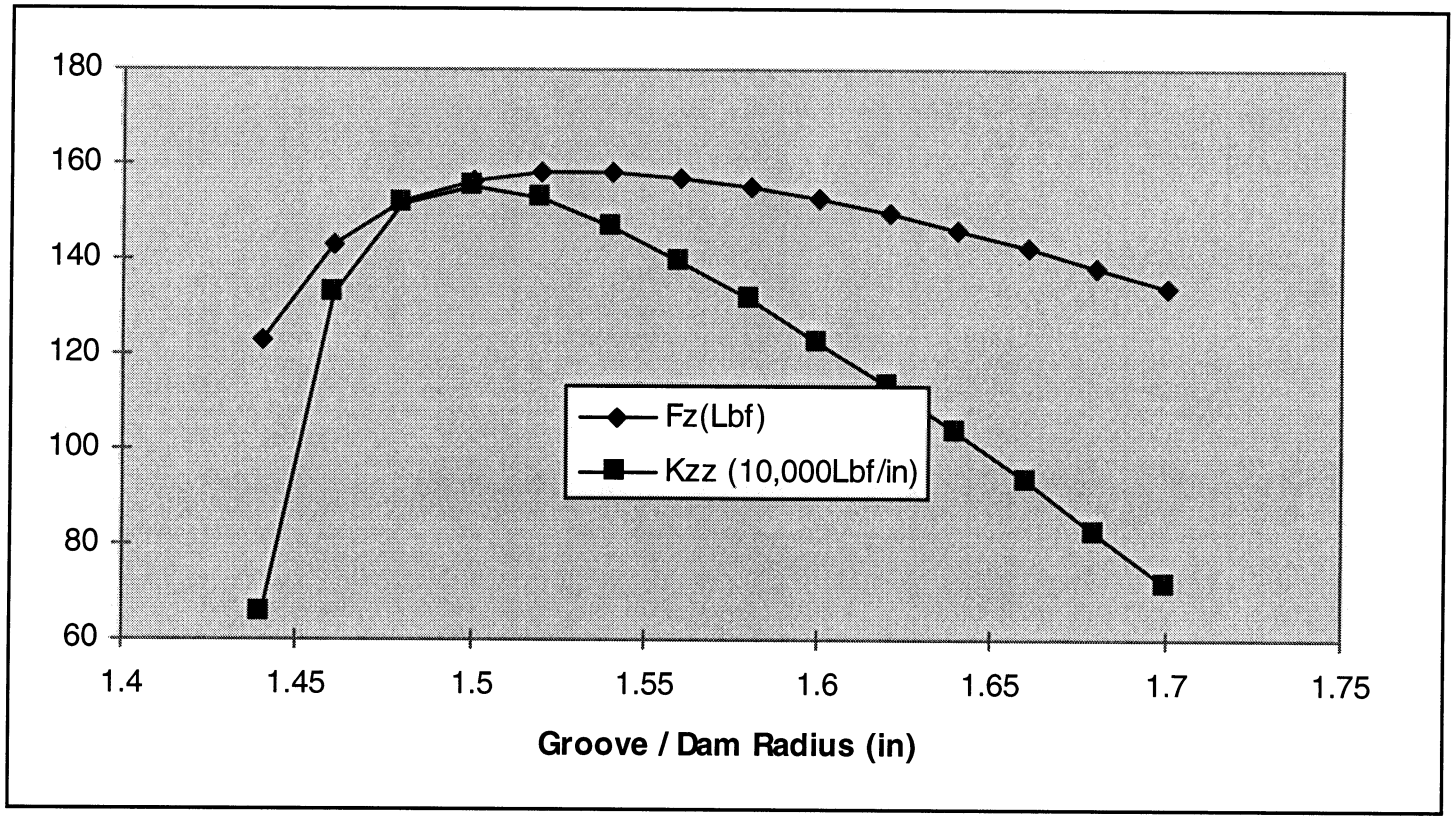
Film load and stiffness



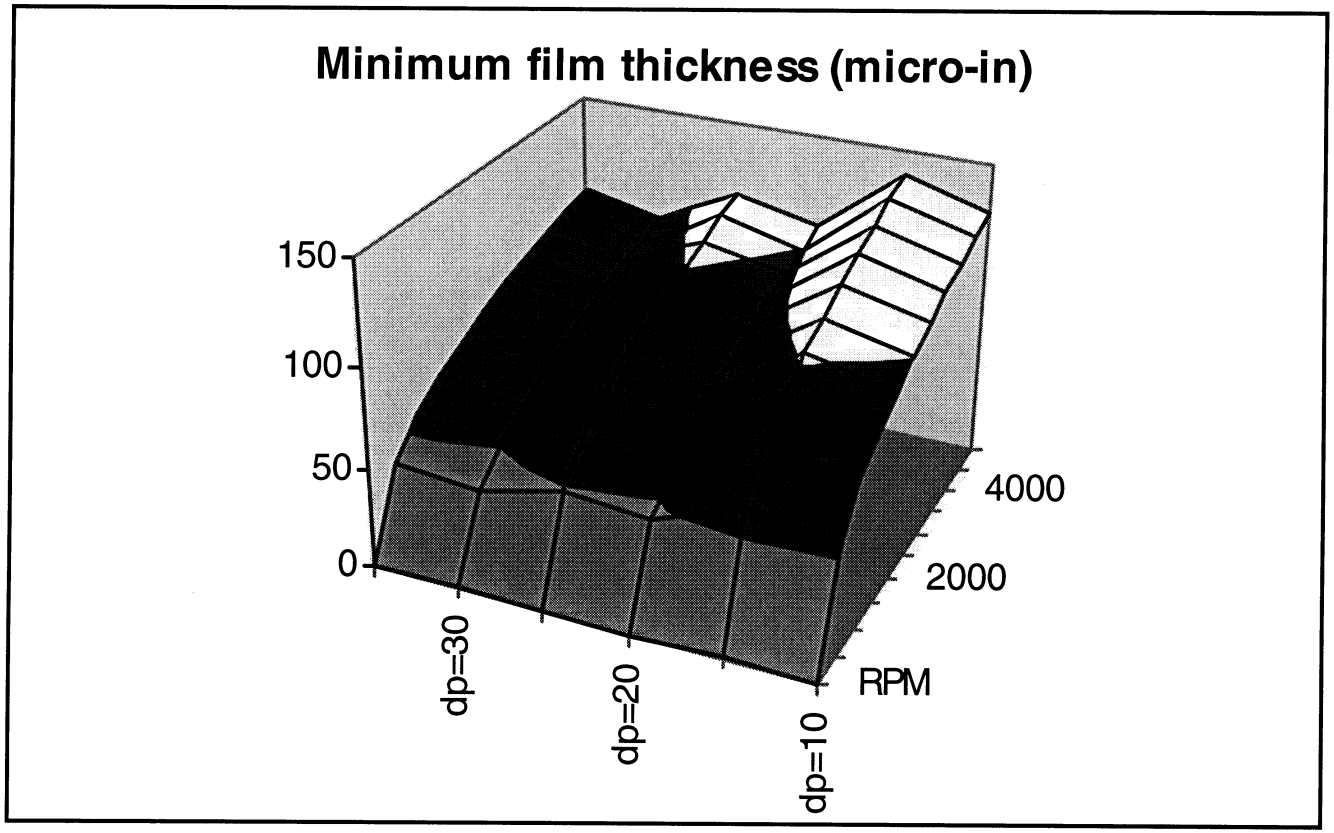
Groove angle Optimization
Film load and stiffness



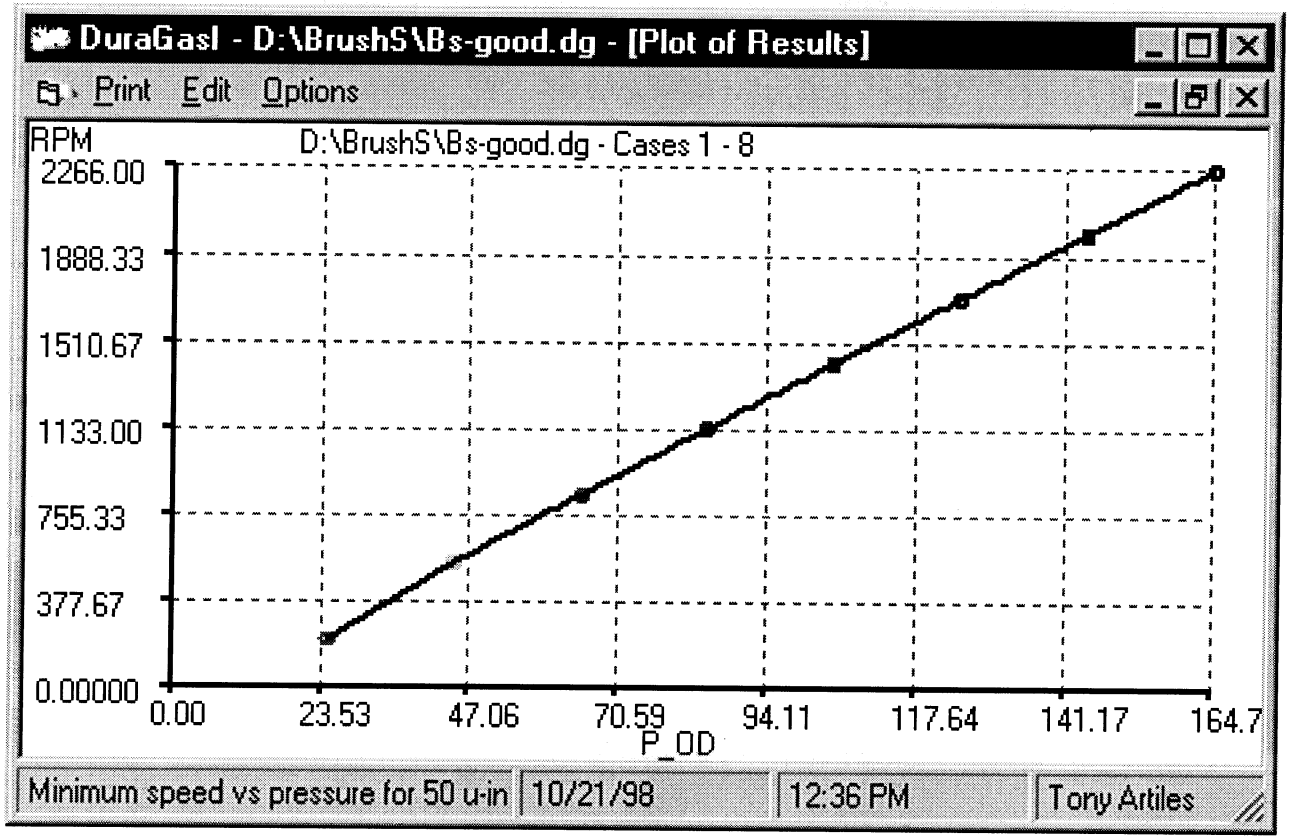
Groove radius Optimization
Film load and stiffness



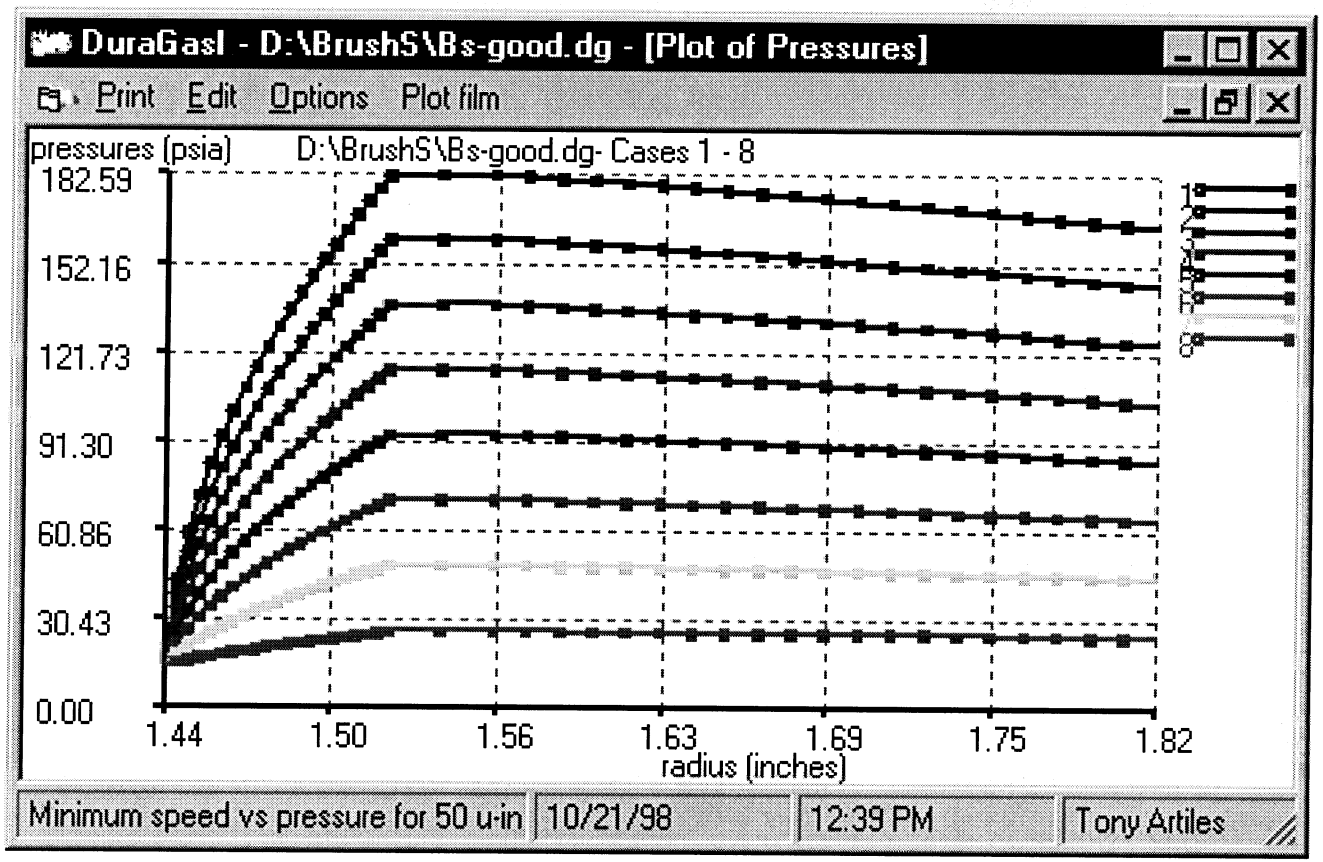
Optimized Performance Film thickness vs. speed and pressure



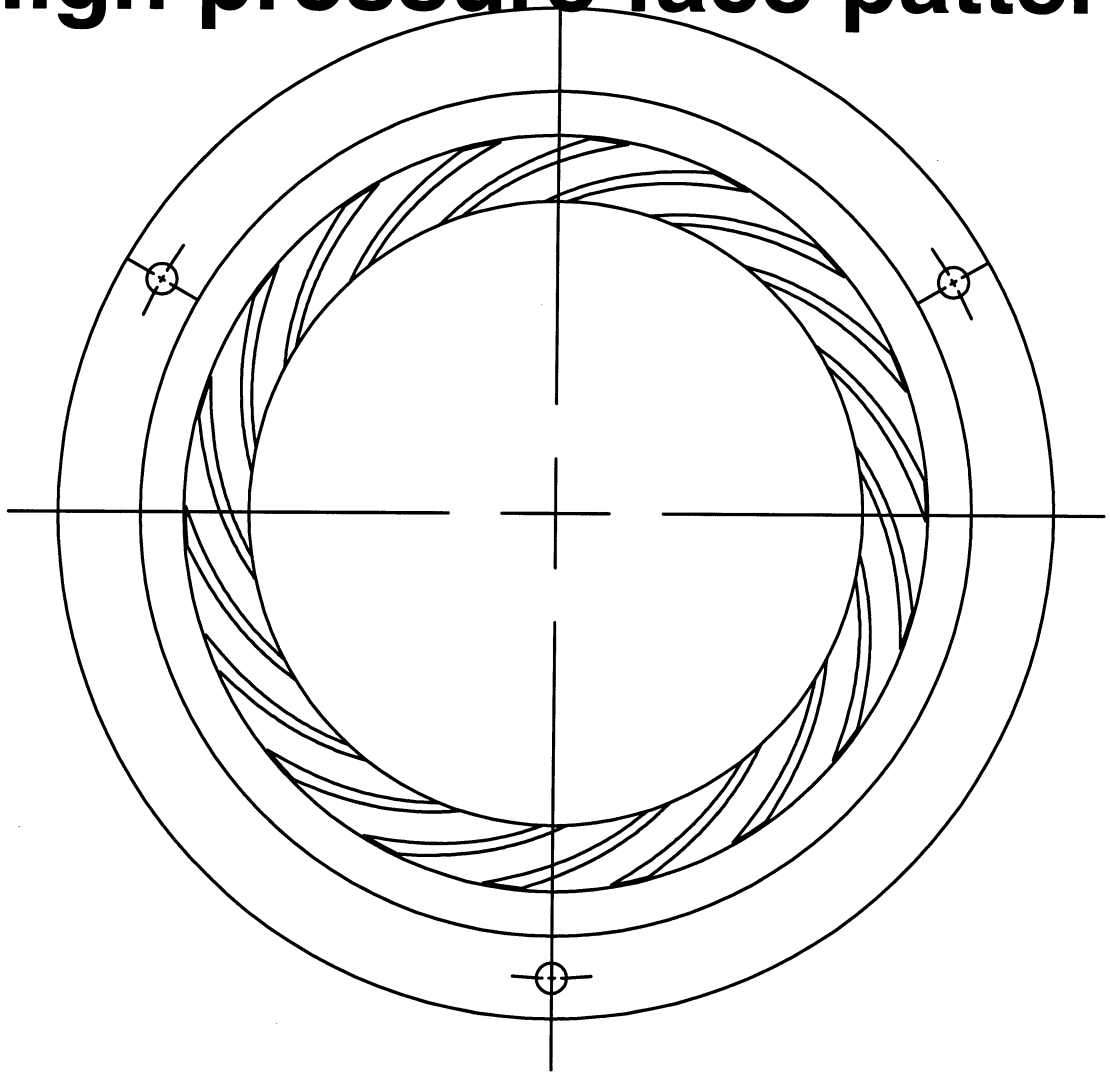
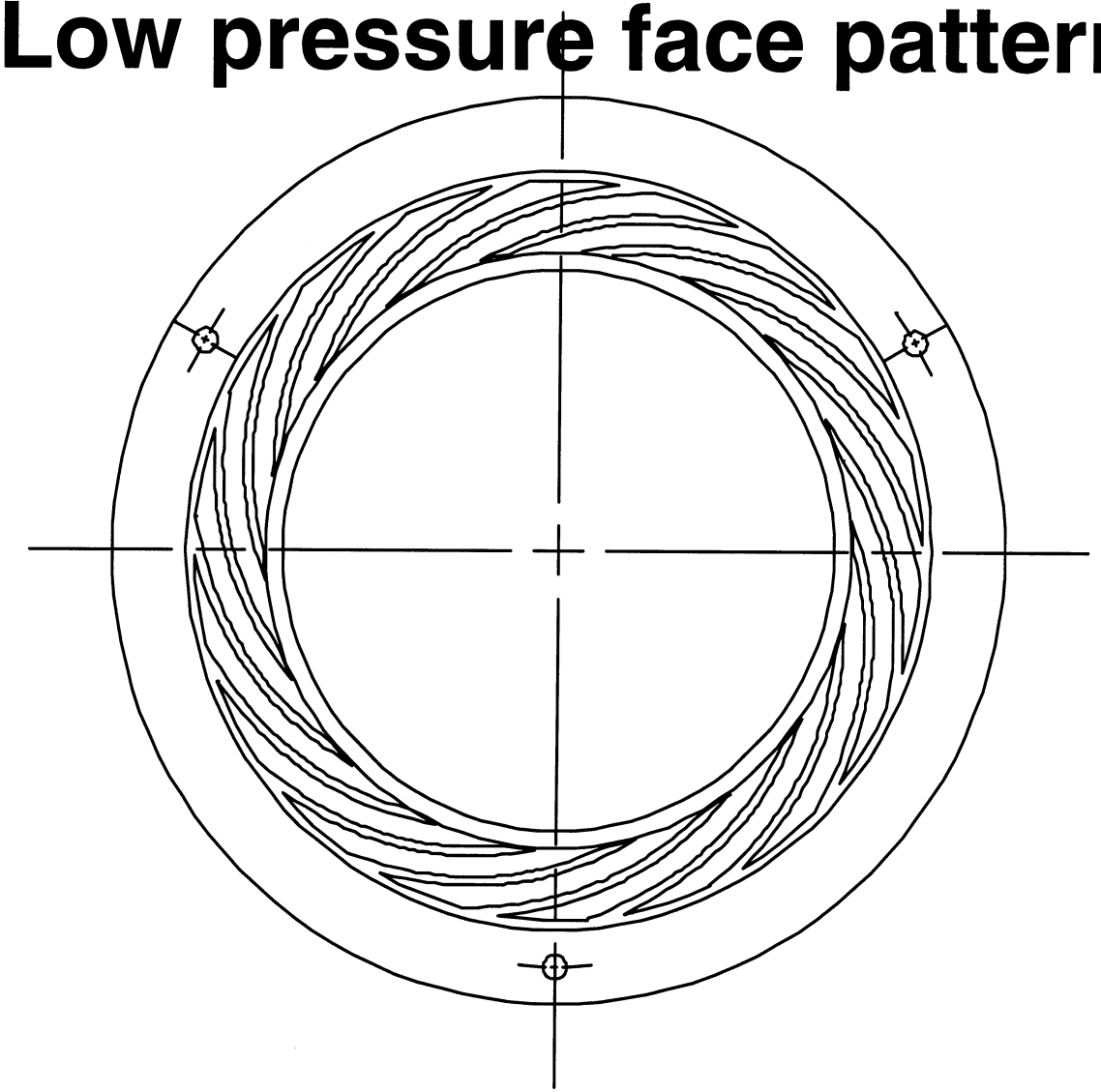
Optimized Performance
Lift-off speed vs. pressure



Optimized Performance
Lift-off speed vs. pressure



High pressure face pattern



Low pressure face pattern