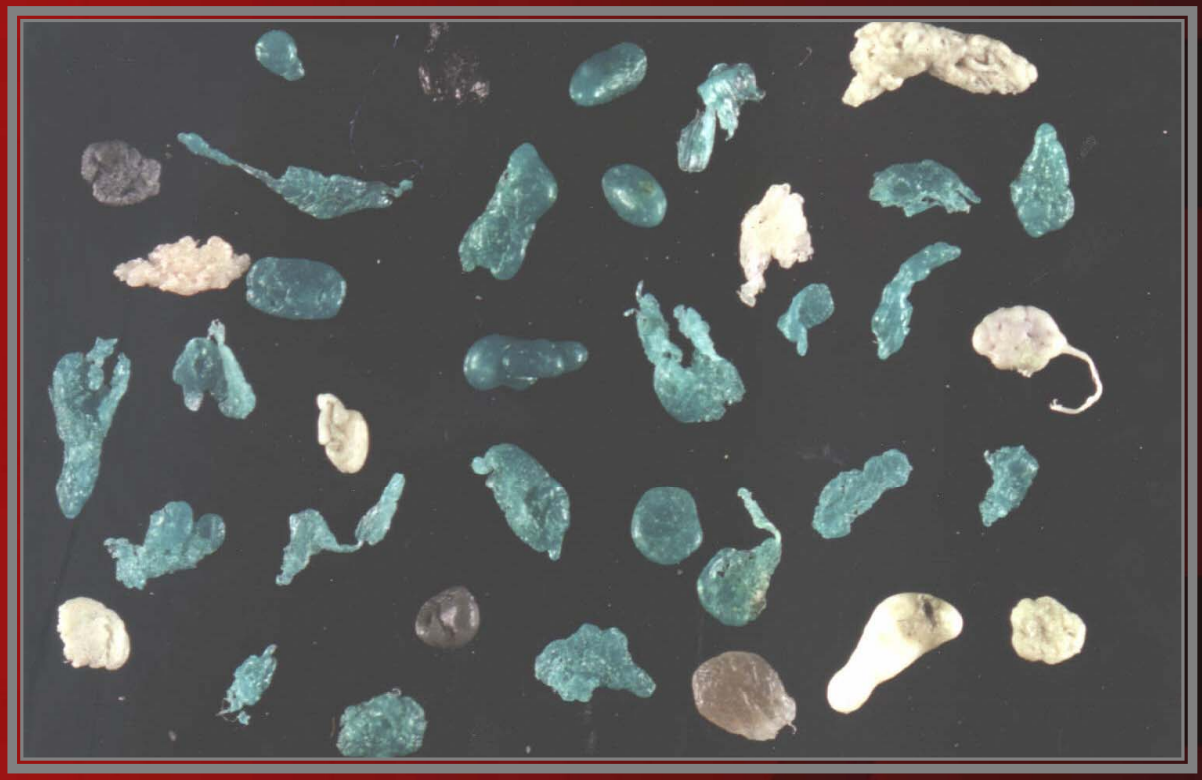
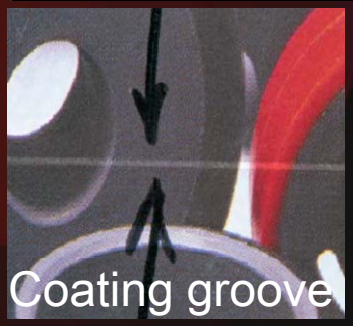
Monitoring plastic contamination in furnishes for coated paper & board



OpTest Equipment Inc.
Hawkesbury, ON, Canada

Plastic Contamination Problems

- Sticking to Driers / Web Breaks
- Holes in Paper
- Coating Steaks
- Print Quality Problems

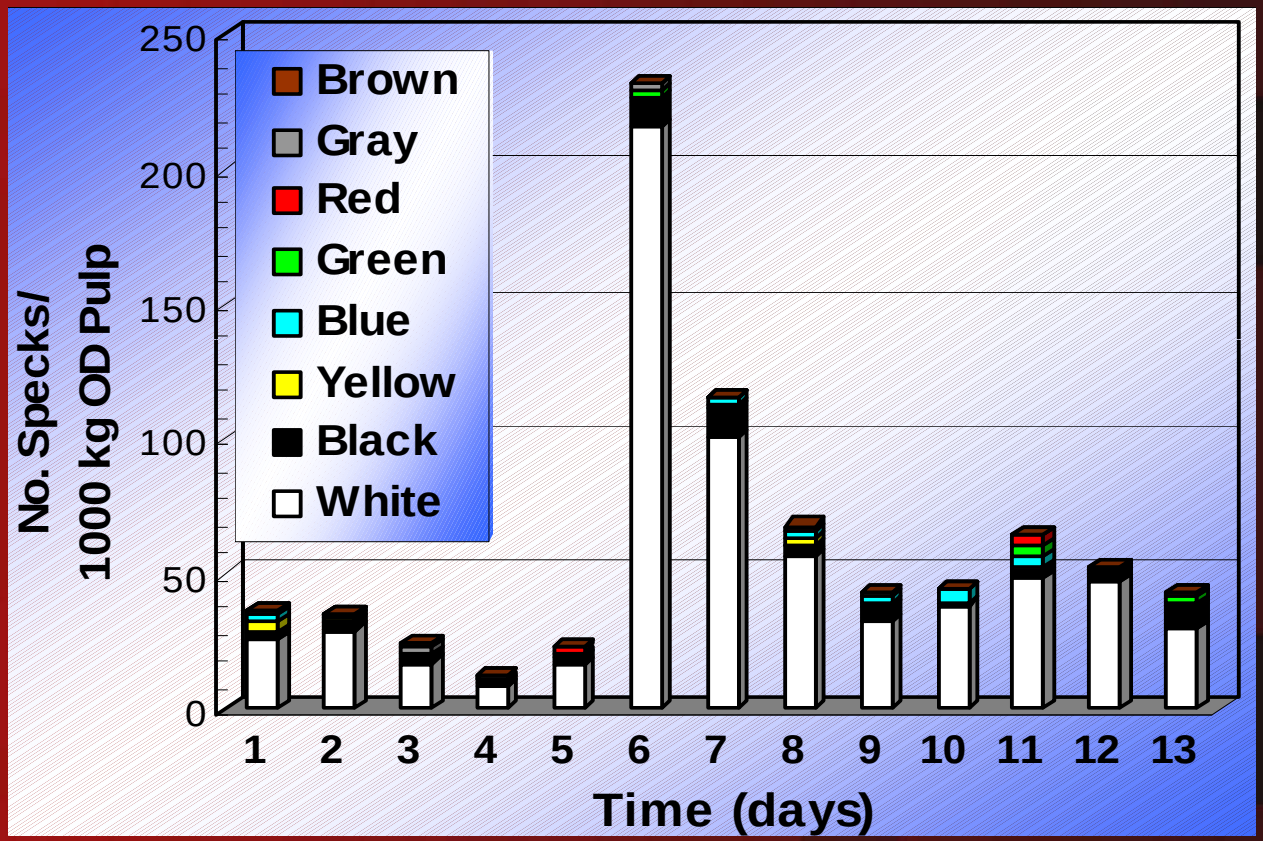


Traditional Plastic Monitoring

- Limitations of optical based inspection:
  - White & light coloured specks typically go undetected
  - Most plastic contaminants are white or clear!

Monitored by the Paprispec

(Courtesy of FPInnovation-Paprican)



- Mostly white plastic that are not detected optically

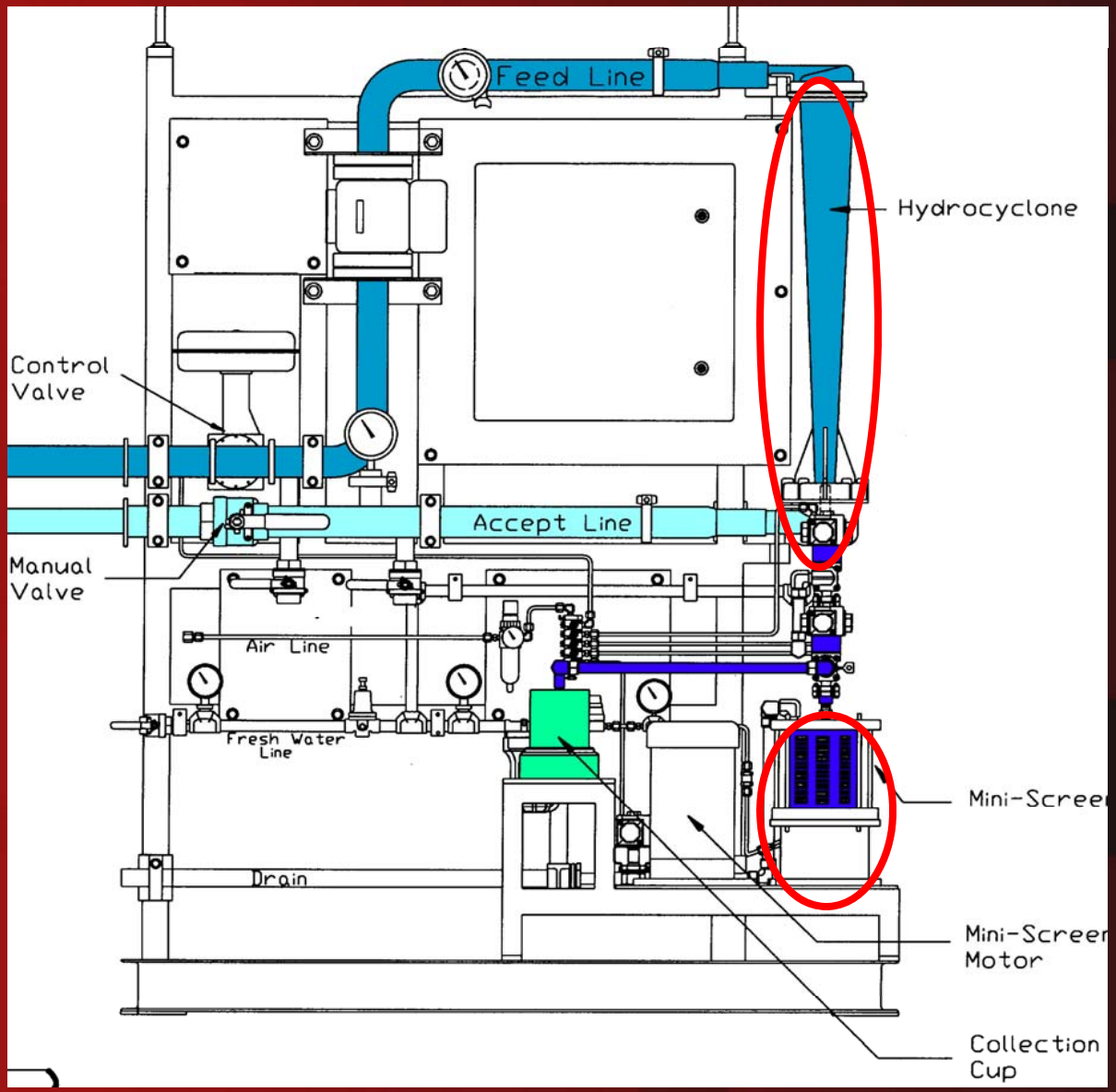
Monitored by the Paprispec

(Courtesy of FPInnovation-Paprican)

On-line Plastic Monitoring

- The Paprispec overcomes the limitations of optical inspection
- The principles of operation …

Paprispec™ Diagram



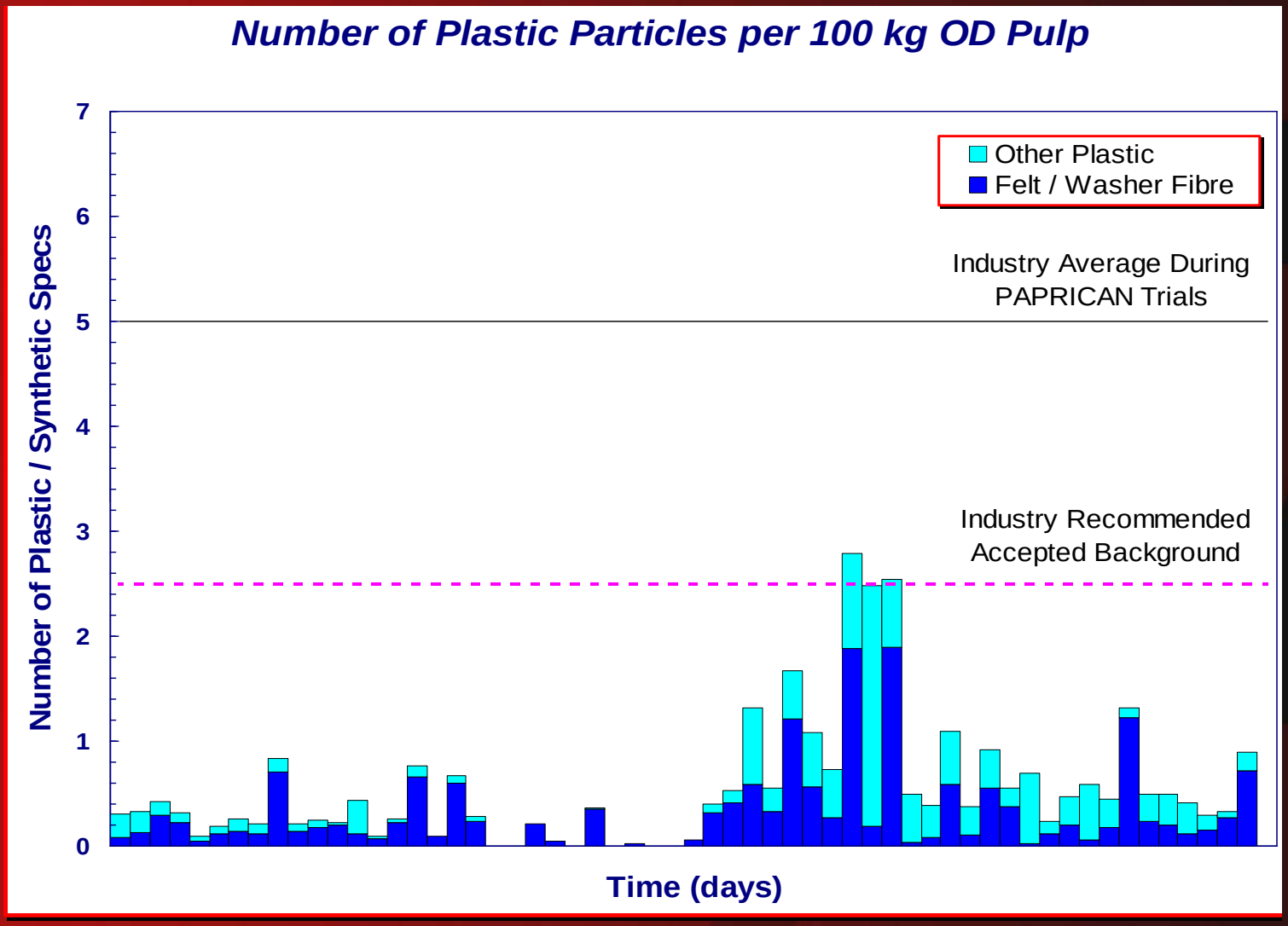
Types of Plastic Collected

- Size Range [100 - 500 m]
- Specific Gravity
  - HDPE, HDPP (SG <1)
  - Nylon, Polystyrene (SG >1)
- Mostly Clear or White

Zero Plastic Furnish?

- Size range
  - [200 - 800 m]
- Mostly white or clear
- Felt hairs & filaments always present
- Background level of very small specks, may not cause problems….

Typical Plastic "Background"



Conclusion

- Paprispec™ monitors 2-3 metric OD tonnes of furnish/day and expedites troubleshooting
- Paprispec™ isolates a wide range of plastic contaminants and catches outbreaks
- A ubiquitous “backgound” level of tiny plastic particles appears to be present
- Paprispec™ can minimize the occurrence of coating & printing problems