

CYCLONE SEPARATOR OPERATION MANUAL

1. INTRODUCTION

The cyclone separator is a critical component in the material processing system. It uses centrifugal force to separate particles from gas streams.

2. NORMAL OPERATING CONDITIONS

- Inlet Gas Temperature: 250-350°C
- Outlet Gas Temperature: 200-300°C
- Inlet Draft: -50 to -150 Pa
- Material Temperature: 80-120°C

3. SHUTDOWN PROCEDURES

A shutdown should be initiated when:

- Inlet temperature exceeds 400°C for more than 10 minutes
- Draft pressure drops below -200 Pa
- Material temperature exceeds 150°C

Emergency shutdown: Close inlet valve, open bypass, reduce fan speed gradually

4. TROUBLESHOOTING

Issue: High Inlet Temperature

Cause: Excessive feed rate or inadequate cooling

Solution: Reduce feed rate by 10-20%, check cooling system

Issue: Low Draft Pressure

Cause: Blockage in cone section or fan malfunction

Solution: Inspect cone for buildup, verify fan operation

Issue: Temperature Fluctuations

Cause: Inconsistent feed or upstream process variation

Solution: Stabilize feed rate, check upstream conditions