



Background

The handling of **Minors** has historically been a high-touch, labor-intensive process in Chengdu. Previously, the material arrived in small bags, requiring operators to manually execute pre-mixing tasks on the 4F, then to be physically transported to the 6F for final feeding. This multi-step process involved repetitive heavy lifting, non-value-added internal logistics, and potential safety risks.

How it works?

We have moved from a complex, multi-touch manual workflow to a streamlined '**Unattended**' **Direct Feed System**.

Before: Small bags -> Manual Unload (4F) -> Pre-mixing -> Transport to 6F -> Manual Feed.

Now: Bulk sacks -> Direct feeding in 6F

The operator no longer needs to pre-touch the material, aligning with CD Touchless & Unattended Operation Vision.

What was done?

We initiated a **strategic E2E transformation** by negotiating with our supplier to switch the packing format from small bags to bulk sacks. To enable this change, the team conducted extensive process capability studies and craft optimization to ensure the new bulk sacks could facilitate smooth material discharge without clogging or quality issues. By validating this new format, we successfully **eliminated the 4F pre-staging phase entirely**, enabling the '**4Hrs Unattended**' in MSG 4F.

Project Name:
End-to-End Material
Handling Transformation
- Smart Dosing

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Before



Extra efforts in
SNO for small bags
palletizing &
cleaning

After



Touchless in MSG & SNO



Unattended (4Hrs unattended in MSG 4F)

7F	Admix (4h unattended)	Unattended Area	
6F	Admix		
5F	Admix		
4F	Premix (2h unattended)	Admix	
3F	Premix (4h unattended)	Admix (4h unattended)	
2F	Premix (2h unattended)	Control Room	Buggy Station
1F	Hot Air (8h unattended)	Premix (4h unattended)	HPP (4h unattended)

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247 #/day
Touch#



710 mins/day
Touch Effort



4 Hrs Unattended
In MSG 4F



CD Touchless Operation Newsletter

