

# ANTI-GRAVITY BLENDER

## RECIRCULATING/FLUIDIZED BLENDING



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Young Industries Patented Anti-Gravity Blender is a gentle, energy and cost-efficient method to blend fine powders. The Blender is most efficient for handling powders with particle size less than 100 mesh. The Anti-Gravity Blender can effectively blend powders that have poor flow properties. Unlike mechanically driven blenders this system uses only low volume/low pressure compressed air/gas to gently condition and blend powders. No motor driven or mechanical agitation required! The result is a homogeneous blend of powder.



**ADVANCED  
TECHNOLOGY  
PROVEN DESIGN**

## HOMOGENEOUS BLENDING OF FINE POWDERS WITH NO MOVING PARTS

The Anti-Gravity Blender generally consists of a cylindrical hopper with sufficient capacity to hold the contents of the batch to be blended. Hopper capacity can range from 5 cubic foot to 1200 cubic foot. The hopper cone is lined with Young Industries Transflow<sup>®</sup> fluidization media. The cone angle is normally 60 degrees but can be as shallow as 30 degrees in applications where height is an issue. The 316 stainless steel Transflow<sup>®</sup> fluidization media is chambered in a manner to optimize the blending of powder.

The blending chamber located at the discharge of the cone is Transflow lined. This Transflow<sup>®</sup> lined chamber continues the blending and conditioning process.

The blending chamber process discharge nozzle is located on the vertical center of the chamber and has a shut-off valve to isolate the Blender from the process below. With the valve closed, powder is directed to the second elevating discharge nozzle in the chamber which exits into the Stinger<sup>®</sup> Blending tube. The Stinger<sup>®</sup> tube continuously permeates low pressure conditioning air/gas into the powder while it moves vertically from the chamber to the top of the hopper to further enhance the blending action. The steady movement and blending of powder is accomplished with no moving parts. The fluidization of powder in the hopper creates "head pressure" so minimal air/gas is needed to recirculate powder through the blending system. The powder exhibits the flow properties of a fluid.

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## EFFICIENT - GENTLE - FLUIDIZED BLENDING

When the powder is properly blended, the gate at the chamber discharge is opened and powder is released to a conveying system or the process vessel below.

The Anti-Gravity Blender is a simple effective and efficient method to blend powders of all kinds. Testing and demonstrations of the Anti-Gravity Blender is available at Young Industries test facility in Muncy, PA.

