

# PFT™ Powder Flow Tester

...affordable testing for powder characterization

The PFT Powder Flow Tester brings quick and easy analysis of powder flow behavior in industrial processing equipment. Evaluate powder discharge from storage containers. Use as QC check for incoming materials. Rapidly characterize new formulations for flowability and adjust composition to match flow behavior of established products.

#### Choice of Test Options:

- Flow Function
- Time Consolidated Test with Flow Function
- Wall Friction
- Bulk Density

#### Choice of Flow Function Tests:

- Standard 5 Point (25 minutes)
- Quick 5 Point (16 minutes)
- Quick 2 Point (10 minutes)
- Time Consolidation (Variable)

#### Real Time Clock Displays:

- Test Step
- Remaining Time to Completion

#### Data Output:

- Flow Function
- Flow Index
- Arching Dimension
- Internal Friction Angle
- Rat-hole Diameter
- Hopper Half Angle
- Gravity Chute Angle
- Wall Friction Angle
- Bulk Density
- Compressibility Index and Ratio

**Compact design** with small footprint  
Tester fits conveniently on workbench  
Depth: 15inches / 38cm  
Width: 14inches / 36cm  
Height: 27inches / 69cm



## What's Included?

Instrument  
Powder Flow Pro Software  
with USB Cable

## What else is needed?

Choose one or both:

- Standard Volume Accessory Kit  
230cc Trough & 33cc Vane Lid
- Small Volume Accessory Kit 38cc  
Trough & 5cc Vane Lid

Each of the above include:

- Wall Friction Lid  
304 s/s simulated 2B finish
- Outer Catch Tray
- Inner Catch Tray w/ Scraper Tool
- Powder Scoop
- Cleaning Brush

## Optional Accessories

- Wall Friction Lids in Mild Steel  
22-28RA, Tivar 88 or special order
- Temperature Probe
- Humidity Sensor
- Sieve Kit Standard or Small Volume



*Small Volume Vane Lid*

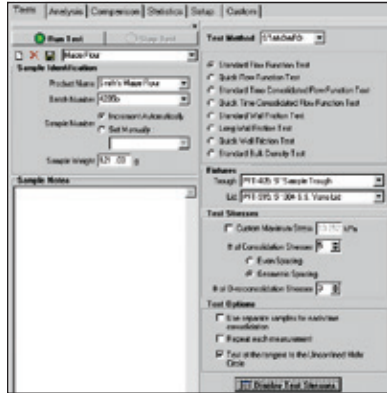
*43cc Sample Size*

*Standard Volume Vane Lid*

*263cc Sample Size*

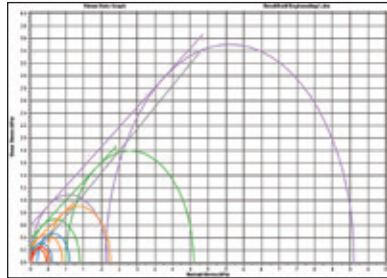
## Powder Flow Pro Software Included

Operation and control of the Powder Flow Tester is accomplished with Powder Flow Pro Software.

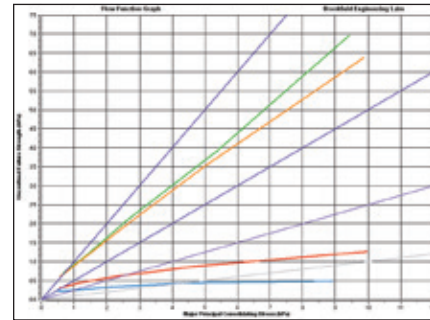


Main screen provides choice of basic tests:

- Flow Function
- Wall Friction
- Time Consolidated Flow Function
- Bulk Density



Stress data output screen captures "normal stress" and "shear stress" values and plots data in graphical format (calculates Mohr Circle Failure Loci).



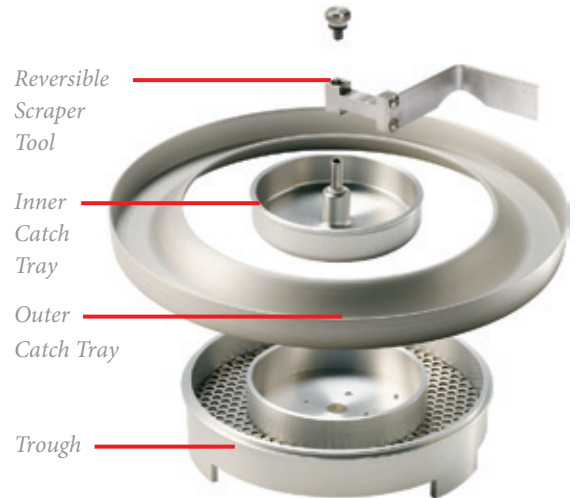
Flow Function test produces graphs of powder flow behavior which show: Unconfirmed Failure Strength vs. Major Principal Consolidating Stress



Close-up View of Vane Lid used for Flow Function Test.



Close-up View of Wall Friction Lid for wall friction test and bulk density test



Outer and Inner Catch Trays with Scraper Tool for Sample Preparation in Trough

PFT POWDER FLOW TESTER SPECIFICATIONS	
Load for Vertical Axis Compression:	7 kg — Accuracy $\pm 0.6\%$ FSR
Axial Speeds:	0.1mm/second up to 5mm/second
Distance:	Accuracy $\pm 0.3$ mm
Torque:	$\pm 7.0$ N•m — Accuracy $\pm 1.2\%$ FSR
Trough Rotational Speeds:	1 revolution/hour (RPH) up to 5 RPH
Temperature Sensing:	-20°C to 120°C*
Humidity Sensing:	10% to 95% RH $\pm 5\%$ †
Dimensions (wxdxh):	(cm) 36.2 x 39.7 x 67.6 (in) 14 <sup>1</sup> / <sub>4</sub> x 15 <sup>5</sup> / <sub>8</sub> x 26 <sup>5</sup> / <sub>8</sub>
Weight:	34 kg (75 lb)

\* Requires Part No. DVP-94Y

† Requires Part No. PFT-607Y

MINIMUM COMPUTER SPECIFICATIONS FOR POWDER FLOW PRO SOFTWARE	
2GHz processor with 1 GB of RAM and 30 MB hard drive space available	
1024x768 video resolution with 128 MB of graphics memory	
Windows 7, 8 or 10 (32 and 64 Bit) with one USB or RS-232 port	