

May 2007

Technology Evaluations Inc.'s

Model 2-6.2

TEI Fluidizer

Technical Specifications & Installation

THE TECHNOLOGY

The TEI Fluidizer uses Pneumatic Modulation Technology (PMT) to decrease flow viscosity and induce movement of fine-powders such as, cement and Class C fly ash. When applied to storage units equipped with air-slides, PMT provides complex and/or multiple frequency pulses into the air flow, generating micro-shear at the airslide/powder interface which effectively cuts the volume of air required to fluidize powders by approximately one-half. In addition, the fluidity of powder is significantly increased—even for stagnant cement (provided it is not hydrated) that has resisted flow for years. The advanced design of the TEI Fluidizer produces a unique PMT that virtually eliminates the reflected wave interaction, avoiding the node and anti-node effects on the air-slide. This allows air-slides to continuously discharge product right down to the airslide cloth and maintain full discharge rates, even for the last 10% to 15% of inventory that is typically difficult to extract. The lower viscosity induced by PMT also cuts an air-slide's working angle to about 4°, which can double the reach of enclosed aeration conveyors and lower construction costs.

TEI FLUIDIZER MODEL 2-6.2

<u>INLET AIR</u>	Flow (Water free)	Pressure	Temperature
Design Rating	2260 cfm	10 psi	-10 to 65 C
Max Rating	3000 cfm	15 psi	-20 to 85 C

<u>ELECTRONICS</u>	Ratings
Motor	2 HP, TEFC
VFD	2 HP, NEMA4 (choice of 230 or 460V)
Control Room Interface	Yes
Ambient Conditions	-10 to 50 C (non-condensing)

<u>AIR OUTLETS</u>	Flow (Water free)
Number of outlets	2
Frequency	4 to 38 Hz
Amplitude adjustment	0 to 100%
Outlet size	4 inch
PMT by-pass mode	Yes

Note: Fluidizer outlets must be connected to different sets of air-slides. For recommended piping configurations, visit www.technologyevaluations.com

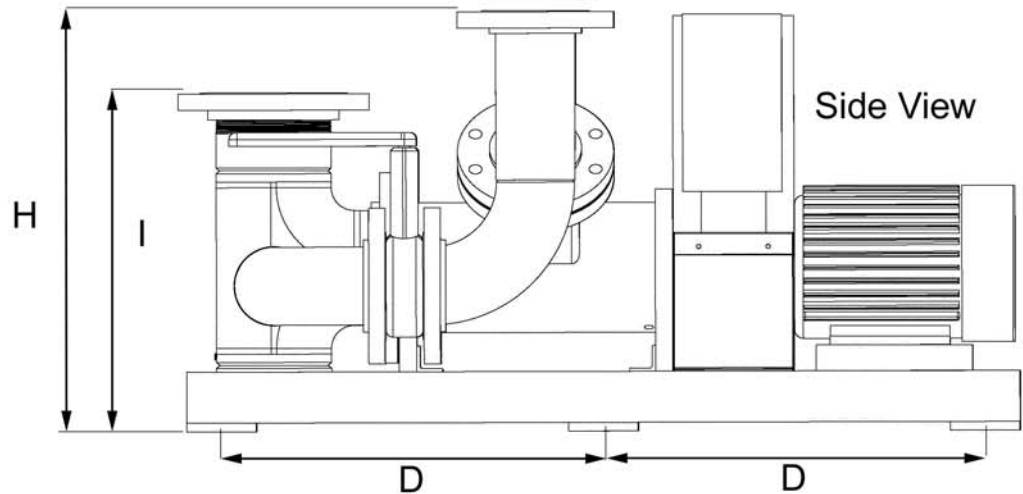
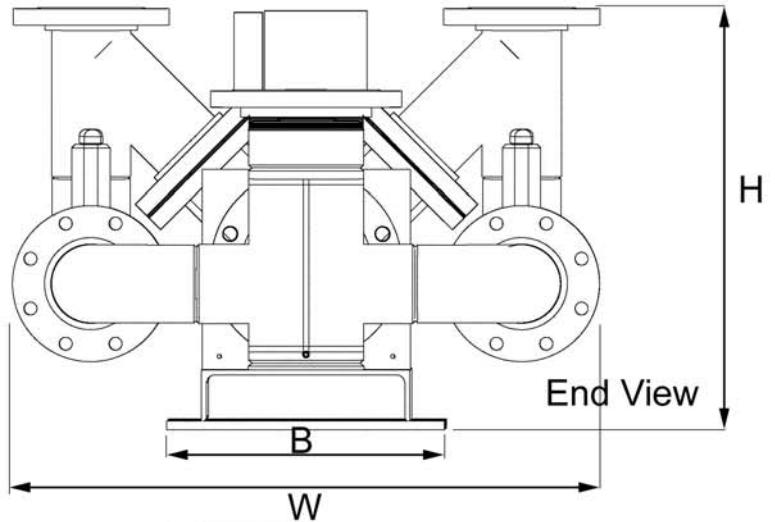
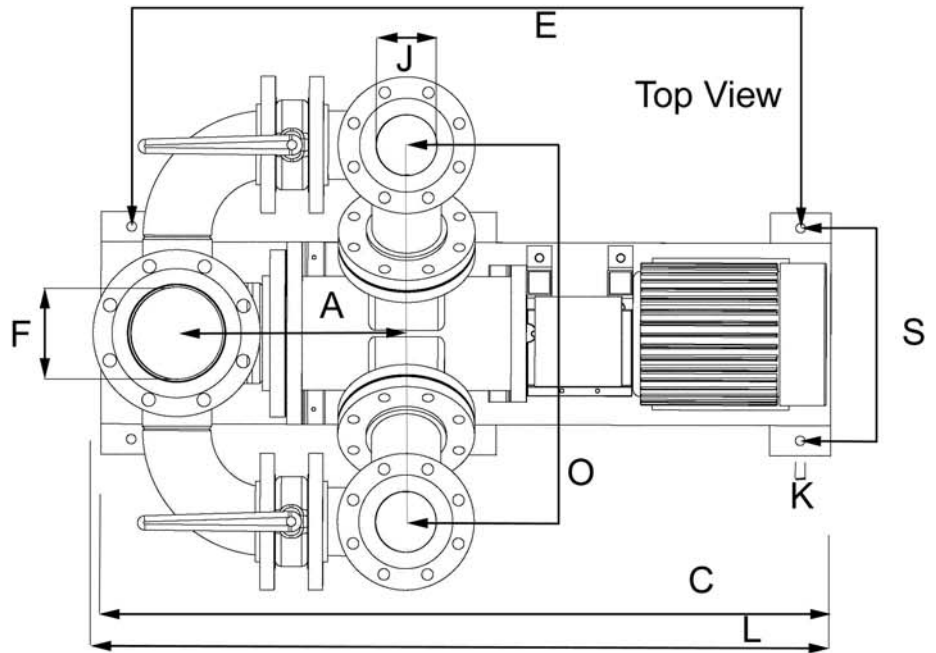
QUALITY BY DESIGN

The TEI Fluidizer design applies over thirty years of industrial field experience, and is the result of significant research and exhaustive FEA modeling to optimize the machine's performance and durability. Two systems are used to address entrainment of dust and grit coming from the blower-pipeline: the internal system provides galleries to by-pass fine grit between moving parts, and a separate system scavenges coarse grit. Each unit is machined using stress relieved alloys, and employs CNC machining and water cutting to avoid thermal stress. To meet international needs, all internal and core components are metric and for ease of maintenance, US based machines incorporate imperial threaded connectors on most external fittings. All electrical components are UL rated. Critical internals are chemically etched to increase hardness and corrosion resistance. For longer-lasting protection against corrosion, the Fluidizer assembly also uses stainless and galvanized fittings, and is finished with a high zinc, three-coat resin system.

INSTALLATION DIMENSIONS TEI LUIDIZER MODEL 2-6.2

EQUIPMENT NOTES:

- ◆ **MOTOR** Enclosed terminal strip with comprehensive control and monitoring options for remote control room operation.
- ◆ **ELECTRIC CONTROLS** Isolation S/W, ON/OFF, & Emergency Stop. All rated NEMA 4.
- ◆ **AIR REGULATOR** Requires clean and dry air for shaft seal; 10 to 300psi, 1/4" tube quick-connector.
- ◆ **GRIT FILTER** Integrated scavenger for blower air grit (1.5 mm max), 450cc capacity, clear-view, easy to empty chamber.
- ◆ **OUTLETS** 4", 150# flanges.
- ◆ **INLET** 6", 150# flange; removable to 6" NPT male.



KEY	Inches	mm
A	15.2	385
B	16	406
C	48	1219
D	22	559
E	44	1118
F	6	155
H	24.2	615
I	19.6	497
J	4	103
K	0.63	16
L	48.5	1232
O	24.8	630
S	14	356
W	33.8	859
Mass	650 Lb	295 Kg

Note: Specifications may change without notice. External dimension tolerance +/- 0.5%