# ROTARY AIRLOCK FEEDER VALVE APPLICATION DATA SHEET

Company _____ Date _____

Contact _____ Salesperson _____

Phone # _____ Fax # _____

293-A-008 Job Reference _____

## FUNCTION OF VALVE

- ☐ **AIRLOCK ONLY:** MINIMIZES SYSTEM AIR LOSS WHILE ALLOWING THE TRANSFER OF MATERIAL BETWEEN VESSELS WITH DIFFERING PRESSURE
- ☐ **FEEDER ONLY:** REGULATES THE CONTINUOUS FLOW OF MATERIAL BETWEEN VESSELS SHARING THE SAME PRESSURE
- ☐ **AIRLOCK-FEEDER:** MINIMIZES SYSTEM AIR LOSS WHILE REGULATING THE FLOW OF MATERIAL BETWEEN VESSELS WITH DIFFERING PRESSURE

## CONDITIONS ABOVE VALVE

VALVE IS INSTALLED BENEATH:

☐ HOPPER ☐ SILO ☐ BAGHOUSE
☐ CYCLONE ☐ FILTER RECEIVER ☐ SCREW
☐ SHREDDER ☐ DRYER ☐ MIXER
☐ OTHER: _____

PRESSURE ABOVE VALVE IS:

☐ POSITIVE ☐ NEGATIVE ☐ ATMOSPHERIC
_____ PSI _____ "Hg _____ "$H_2O$

TEMPERATURE ABOVE VALVE IS: _____ °F

IS VALVE CHOKE-FED? ☐ YES ☐ NO

HUMIDITY IS: ☐ HIGH ☐ AVERAGE ☐ LOW

## CONDITIONS BELOW VALVE

VALVE IS INSTALLED ABOVE:

☐ HOPPER ☐ SCREW ☐ AIRSLIDE
☐ BELT ☐ CHUTE ☐ MIXER
☐ TANK ☐ VACUUM LINE ☐ PRES. LINE
☐ OTHER: _____

PRESSURE BENEATH VALVE IS:

☐ POSITIVE ☐ NEGATIVE ☐ ATMOSPHERIC
_____ PSI _____ "Hg _____ "$H_2O$

TEMPERATURE BENEATH VALVE IS: _____ °F

DIAMETER OF CONVEYING LINE IS: _____

HUMIDITY IS: ☐ HIGH ☐ AVERAGE ☐ LOW

WHAT IS THE AMBIENT TEMPERATURE: _____ °F

## MATERIAL CHARACTERISTICS

COMMON NAME: _____

CHEMICAL FORMULA: _____

BULK DENSITY, AERATED: _____ Lbs./Cu.Ft.

BULK DENSITY, SETTLED: _____ Lbs./Cu.Ft.

MAXIMUM PARTICLE SIZE: _____

PARTICLE TYPE/SHAPE IS:

☐ PELLET ☐ POWDER ☐ CHIP ☐ LUMP
☐ GRANULAR ☐ FLAKE ☐ CURL ☐ FIBROUS

MESH SIZE-ANGLE OF REPOSE IS: _____ °

____%THRU $^1/_2$" ____%THRU $^1/_4$" ____%THRU $^1/_8$"
____%THRU $^1/_{16}$" ____%THRU 25 ____%THRU 50
____%THRU 100 ____%THRU 200 ____%THRU 400

FLOWABILITY: ☐ EXTREME ☐ MODERATE ☐ SLUGGISH

MOISTURE CONTENT OF MATERIAL IS: _____ %

TEMPERATURE OF MATERIAL IS: _____ °F

SPECIAL CHARACTERISTICS:

☐ HYGROSCOPIC ☐ CORROSIVE-REACTIVE
☐ EXPLOSIVE ☐ TOXIC-EMITS FUMES
☐ STICKY-SMEARS ☐ HEAT SENSITIVE
☐ AERATES-DUSTY ☐ TENDS TO PACK
☐ OTHER: _____

ABRASIVENESS: ☐ EXTREME ☐ MODERATE ☐ MILD

ALLOWABLE MATERIAL DEGRADATION IS: _____ %

COMMENTS: _____

## OPERATING CONDITIONS

CONSTANT RATE OF FLOW PER HOUR:

_____ Tons _____ Lbs. _____ Cu.Ft.

VARIABLE FEED RATE (IF REQUIRED)

MAX: _____ AVG: _____ MIN: _____

DUTY CYCLE: ☐ CONTINUOUS ☐ INTERMITTENT

COMMENTS: _____

## SIZE AND SPEED SELECTION GUIDE

| CAPACITIES (CFR) | | |
|---|---|---|
| SIZE | 6V | 8V |
| 4X4 | .02 | — |
| 6X6 | .07 | .065 |
| 8X8 | .18 | .17 |
| 9X9 | .29 | .27 |
| 10X10 | .36 | .34 |
| 12X12 | .64 | .61 |
| 12X21 | 1.08 | 1.03 |
| 14X14 | 1.12 | 1.05 |
| 16X16 | 1.62 | 1.55 |
| 18X18 | 2.29 | 2.20 |
| 22X22 | 4.34 | 4.20 |
| 26X26 | 7.30 | 7.00 |
| 30X30 | 11.30 | 11.12 |
| 36X36 | 21.00 | 20.0 |

1) $\frac{(\quad)}{60}$ Lbs./Hour = ( ) Lbs./Minute

2) $\frac{(\quad)}{(\quad)}$ Lbs./Minute / Lbs./Cu. Ft. = ( ) CFM

3) $\frac{(\quad)}{(\quad)}$ CFM / CFR = ( ) $RPM_1$

4) $\frac{(\quad)}{(\quad)}$ $RPM_1$ / *FF = ( ) $RPM_2$

*FILL FACTOR

RECOMMENDATION: _____

Meyer Industrial
1700 Franklin Blvd.· Libertyville, IL 60048 · Phone: 847-918-0111 · Fax: 847-918-8183
e-mail: sales@wmwmeyer.com · web address: https://www.meyerindustrial.com