FEEDER “TE” ROTARY (AIRLOCK)

CLOSED END ROTOR

APPLICATION: FLSmidth "TE" (Totally Enclosed) Rotary Feeders (airlocks) with Closed End Rotors are designed to meter dry, pulverized or granular materials; or serve as airlocks for pressure and vacuum pneumatic conveying systems. Feeders are available in capacity ranges to meet most plant requirements for vacuum, pressure and general-purpose applications.

The closed end rotor eliminates the need for close clearances between rotor ends and end plates and is advantageous when handling materials that have a tendency to smear or build up such as resins and petrochemical.

When installed in a pressure conveying system the use of air purge (standard on all sizes) is recommended when handling fine powdery material. The air purge should be set 2 to 4 PSIG (.14 to .28 Kg/cm2) above conveying line pressure.

SPECIFICATION: **General**

FLSmidth manufactures three (3) types of TE feeders with closed end rotors:
Type I Body end plates constructed of #50 cast iron with fabricated steel rotor.
Type II Body and rotor constructed of type 304 stainless steel with aluminum end plates.
Type III Complete 304 stainless steel (body, rotor and end plates).

Body and End Plates

The body and end plates have heavy-duty construction and permit minimum rotor clearances. Motor support lugs are cast as an integral part of the body, and permit the mounting of the gearmotor directly on the unit, resulting in a compact package.

The end plates have integral-cast outboard bearing supports and male-female joints between end plates and feeder body ensuring concentricity.

Rotor

All rotors are beveled and constructed of type 304 stainless steel or fabricated steel. Rotors have six or seven vanes with at least four vanes in seal between inlet and outlet.

Bearings are shielded, anti-friction and mounted on rotor shaft outboard of the packing gland.

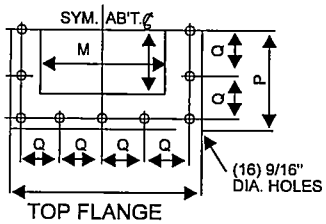
Motor Mount & Drive

Gearmotors are mounted directly to feeder body. Fractional gearmotors are TENV. Integral horsepower gearmotors are TEFC. All gearmotors are 3 phase, Volts AC, 60 Hz.

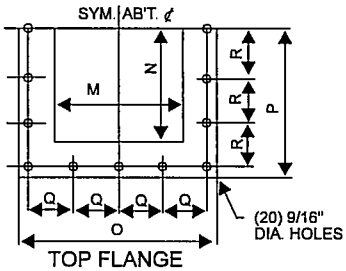
Special Notes

All standard TE Rotary feeders (airlocks) are designed to handle material having maximum temperature of 150°F (65°C). Above 150° F to 450° (65°C to 232°C) requires additional periphery clearance.

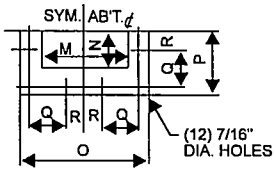
CLOSED END ROTOR



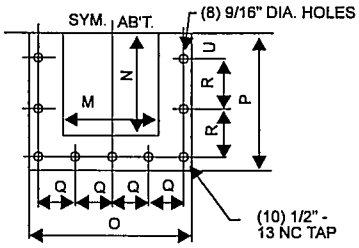
TOP FLANGE
VIEW AA
10" PRESSURE LOCK



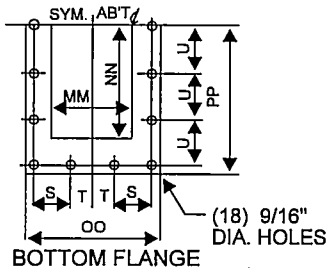
TOP FLANGE
VIEW AA
10" X 18" PRESSURE LOCK



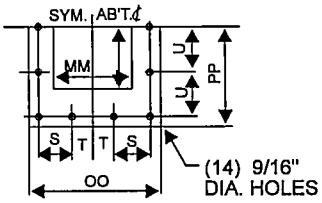
TOP FLANGE
VIEW AA
8" PRESSURE LOCK



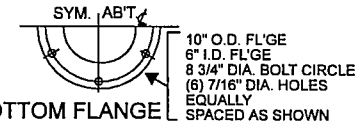
TOP FLANGE
VIEW AA
15" PRESSURE LOCK



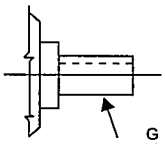
BOTTOM FLANGE
VIEW BB
10" X 18" PRESSURE LOCK



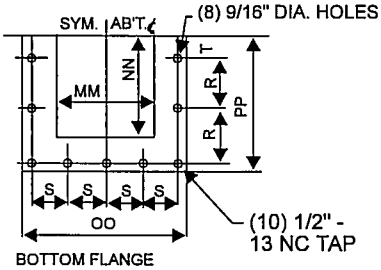
BOTTOM FLANGE
VIEW BB
10" PRESSURE LOCK



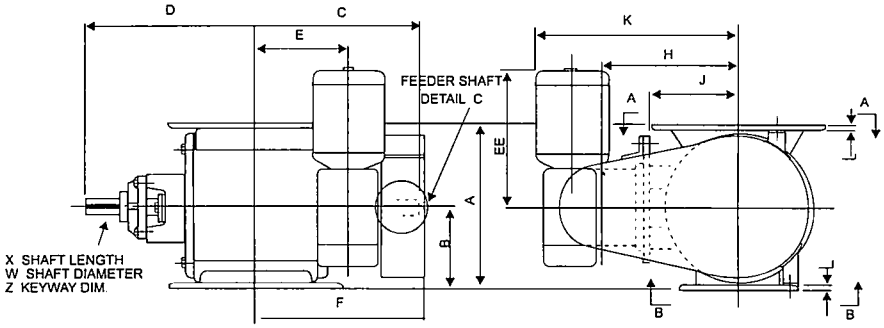
BOTTOM FLANGE
VIEW BB
8" PRESSURE LOCK



G SHAFT LENGTH
V SHAFT DIAMETER
Y KEYWAY DIM.
DETAIL C



BOTTOM FLANGE
VIEW BB
15" PRESSURE LOCK



CLOSED END ROTOR

Size in Inches	Displ. Per Rev in Cu. Ft.	A	B	C	D	E	EE	F	G	H	J	K	L	M	N	O	P	MM	NN
8	.15	12	6 1/4	12 3/4	12 3/4	6 3/4	12 9/16	13 1/2	3 1/16	10 3/16	5 3/4	16 3/16	3/8	7	3 1/2	10 1/2	5 1/4	__	__
10	.39	15	7 1/2	15 1/2	15 1/2	8 9/16	13 3/8	16 5/8	3	12 7/8	8 1/2	19 3/16	1/2	10 1/2	5 1/4	16	8	6 1/2	5
10 x 18	.64	15	7 1/2	22 1/4	20 3/4	15 9/16	14 13/16	23 1/4	4	13 3/8	8 1/8	20 3/16	7/16	10 1/2	9 1/4	16	12	6 1/2	9
15	1.33	23	11 1/2	21 7/16	19 11/16	12 1/2	14 13/16	22	3 3/4	18 5/8	10 5/8	25 7/8	7/16	8	8	13 1/4	10 11/16	10	9 1/16

Size in Inches	OO	PP	Q	R	S	T	U	V	W	X	Keyway		Purge Air SCFM	Wt. in Lbs.	
											Y	Z		Feeder Only	Feeder w/Drive
8	__	__	3 1/8	1 1/2	__	__	__	1 1/4	1 1/4	3 1/16	1/4 x 1/8 x2 3/4 Lg.	1/2 x 1/8 x 2 3/4 Lg.	7.2	120	270
10	11	8	3 5/8	__	3	1 3/4	3 5/8	1 7/16	1 7/16	3	3/8 x 3/16 x2 7/8 Lg.	3/8 x 3/16 x 2 7/8 Lg.	7.7	260	420
10 x 18	11	12	3 5/8	3 3/4	3	1 3/4	3 3/4	1 11/16	1 11/16	2 1/2	3/8 x 3/16 x 4 Lg.	3/8 x 3/16 x 2 1/2 Lg.	13.2	300	470
15	15 1/4	10 11/16	3	4	3 1/2	2 1/16	1 11/16	1 3/4	3/4	2	3/8 x 3/16 x3 3/4 Lg.	__	13.2	842	1022

Feeder Displacement Listed at 100% Efficiency
Dimensions in Inches
Gear Motor, Electrical Characteristics - 3 Phase, 60 Cycle, 230/460 Volt

A. FEEDER (only)

Size (Inches)	Displacement Cu. Ft./Rev.	HP	Cast Iron Fabricated Steel Rotor	Stainless Steel Aluminum End Plates	Complete 304 Stainless Steel
8	.12	3/4 - 1	305-64-4-0071-00	132-68-4-1851-02	132-68-4-1851-01
10	.39	1	132-70-4-1901-03	132-70-4-1901-02	132-70-4-1901-01
10 x 18	.64	1	132-70-4-2000-03	132-70-4-2000-02	132-70-4-2000-01
15	1.33	1 1/2 - 2	132-68-4-2102-00	132-71-4-2100-02	132-71-4-2100-00