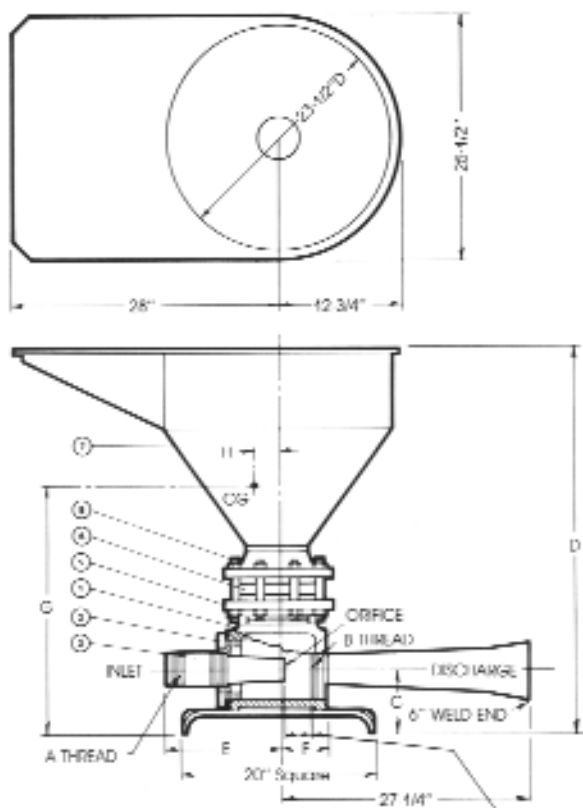


**6" MUD HOPPER
WITH OPTIONAL
VENTURI**

SECTION IV

PARTS LIST

REF.	DESCRIPTION & MATERIALS	PART NUMBERS	
		4"	6"
	Assembly	0412	0612
1	Tee Assembly	0672	0625
2	Bushing Malleable Iron	5211-32161	5211-48241
3	Choke Nipple Steel	0210-112	0360-132
5	Flange Steel	12827	12089
6	Butterfly Valve	2151-1215311	1615-1215311
7	Hopper Assembly Steel	0623	0624
8	Flange Stud Set Steel	2683-004	2683-005
	Venturi (Optional) WCB Steel		15476



**TABLE MAY BE ROTATED
360° In 45° INTERVALS**

1 1/4" - 3 1/8"
Jet Nozzle to
Venturi Gap

DIMENSIONAL DATA

DIMENSION	SIZE	
	4"	6"
A	2" NPT	3" NPT
B	4" NPT	6" NPT
C	4-7/8"	6-1/8"
D	37-3/4"	39-5/8"
E	9-3/8"	11-9/16"
F	3-13/16"	5-1/8"
G	20"	24"
H	3-1/2"	

OPERATING DATA

HOPPER SIZE		4"	6"
Feed Head		70-120 feet	70-120 feet
Volume	Mud	110-140 GPM	1100-1400 GPM
	Bulk Solids	100 lb./min.	600 lb./min.
Volume w/ Venturi	Mud	---	1300-1650 GPM
	Bulk Solids	---	800-900 lb./min.
Choke Nipple Bore		3/4"	2"
Weight		186 lb.	236 lb.
Weight w/Venturi		---	981 lb.

OPERATION AND MAINTENANCE INFORMATION

The RETSCO Mud Hopper is designed for high-volume, low-pressure mud mixing by use of centrifugal pumps. Inlet feed pressure to the Hopper should be in the range of 70 to 120 feet of head, with a minimum amount of backpressure downstream. Backpressure exceeding 50% of the feed head will reduce the vacuum effect and mixing capabilities. A large tee at the base of the Hopper provides ample mixing area around the choke nipple, which is threaded into one side of the tee through the bushing.

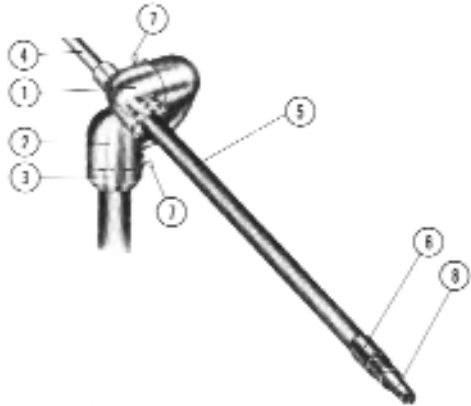
With the Venturi installed downstream of the Hopper, a higher vacuum is created, even with short downstream piping,

allowing more solids-handling per minute. The 6" RETSCO Mud Hopper, with 2" jet nipple and Venturi, will normally accommodate mixing of 8 to 9 100-pound sacks of barite per minute at 70 to 120 feet of differential head. A gap of 1-1/4" - 3-1/8" between the jet nozzle and Venturi is recommended.

To install, connect the pump discharge line to the inlet connection through a swage fitting. Connect the Hopper discharge to the mud line.

At the end of each mixing period, the tee and nozzle should be flushed out with water to eliminate solids build-up and plugging.

Retsco/Demco Mud Guns



PIVOT TYPE

ASSEMBLY PART NUMBER

BASE PART NO. _____

ORIFICE SIZE: 04-1/4", 06-3/8", 08 1/2", 10-5/8" x, 12-3/4"

GUN: 0628 - 0 X X
NIPPLE: 0156 - 2 X X

x 5/8" is normal orifice size.

The RETSCO Pivot Type Mud Gun is provided with a 2" line pipe threaded inlet connection. It is spinproof by alignment of inlet and discharge openings in the same plane. The two swivel joints may be locked in set positions by a lock screw in each.

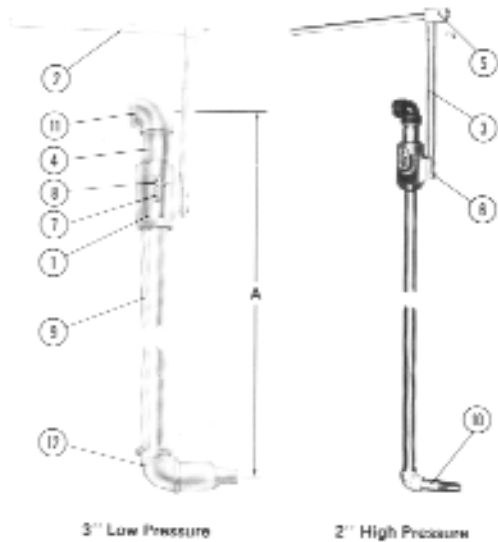
The swivels and piping are designed to withstand 3000 psi minimum burst pressure in the event of nozzle blockage. However, the swivel balls and races may be damaged after exposure.

With the standard 5/8" choke nipple, 200 gallons per minute of mud will exert 150 psi maximum backpressure on the swivel. Recommended maximum test pressure of the gun is 200 psi.

Refer to Data Sheet E-560.

Part No.	Description	Part No.	Wt. Lbs.
1	Gun, Assembly	0628 0xx	51
2	Head	0629	10
3	Body	0630	12
4	Sub	0631	5
5	Handle	0632	7
6	Discharge Tube	0643-05812	11
7	Coupling	5213-125	2
8	Lock Screw	5715-28024	—
7	Choke Nipple	0156 2xx	3
8	Swivel Repair Kit (Includes Fluid Seal, Steel Balls and O Ring)	0637	—

BOTTOM TYPE



RETSCO Bottom Type Mud Guns are designed for submerged service in steel pits. 2" High Pressure Guns are offered for 3000 and 6000 psi minimum burst pressure. 3" and 4" guns are for low pressure, high volume service, using centrifugal pumps. Recommended test pressure for all sizes is 275 psi.

Length "A" is specified by the user for particular tank depth.

Refer to Data Sheet E-570.

ASSEMBLY PART NUMBER

BASE PART NO. _____

INCHES (Length A)

X X X X - X X X 0 0

(Assembly and Discharge Tube)

Description	Part No.	2" HIGH PRESSURE				3" LOW PRESSURE		4" LOW PRESSURE	
		3000 psi Min. Burst Pressure		6000 psi Min. Burst Pressure		275 psi Max. Test Pressure		275 psi Max. Test Pressure	
		Part No.	Wt., Lbs.	Part No.	Wt., Lbs.	Part No.	Wt., Lbs.	Part No.	Wt., Lbs.
Gun, Assy. Complete	—	0638-xxxx	58	9656-xxxx	81	0648-xxxx	102	0658-xxxx	206
Add for Lengths in excess of 6' per ft.	—	—	—	—	—	—	—	—	—
Swivel Sub-Assembly	1,7,8	0742	20	9557	26	0744	38	0745	47
Handle Sub-Assembly	2,3,5,6	0743	14½	0743	14½	0743	14½	0743	14½
Arm	2	0642	5	0642	5	0642	5	0642	5
Bracket	3	0641	9	0641	9	0641	9	0641	9
Riser	4	5221-0163208	4	5221-0164208	7	5221-0242208	4	0854	30
Lube Fitting	7	5196	—	5196	—	5195	—	5195	—
Lock Screw	8	5715-28024	—	5715-28024	—	5715-28024	—	5715-28024	—
Discharge Tube	9	0643-xxxx	11	9555-xxxx	22	0663-xxxx	21	0663-xxxx	113
Choke Nipple	10	0156-210	3	0156-210	3	5226-24122	2	—	—
Ell, Top	11	5217-165	3	5217-166	4½	5217-241	6	—	—
Ell, Bottom	12	5217-125	1½	5217-126	2½	5217-241	6	—	—
Swivel Repair Kit (Includes Fluid Seal, Steel Balls and O Ring)	—	14849	—	14849	—	0637	1½	0667	2