



**A & M PROCESS EQUIPMENT LTD.**



Scientifically  
Engineered  
Customized  
Blenders to suit  
your every  
application

Blenders for the processing of:

- Food
- Dairy
- Pharmaceutical
- Chemical
- Plastics
- Other Industries



**RIBBON & PADDLE BLENDERS**

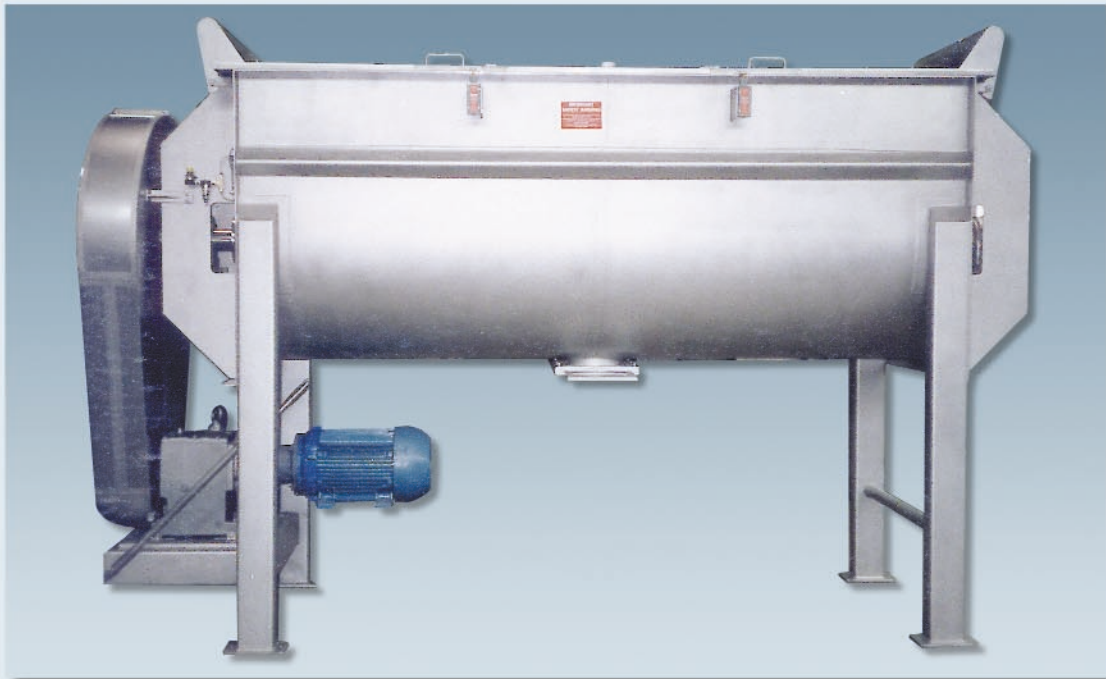


## A & M RIBBON & PADDLE BLENDERS

A & M Ribbon and Paddle Blender designs have served Canadian industry for over 80 years in the processing of food, dairy, pharmaceutical, chemical, plastics and other process industries. Each blender is customized to suit its intended application. The balanced ribbon design assures a constant and complete mixing action, while preventing product build up and minimal degradation. This positive mix action is based on multiple mixing of the feed product incorporating tumbling, shearing and horizontal displacement of every particle. The outer ribbons

convey the material to the center or discharge point, while the inner ribbons move the material in the opposite direction for thorough end to end mixing.

Paddle agitators are specially designed to lift, scoop, and tumble materials in a gentle, but thorough "figure 8" mixing action. This agitator design is ideal for mixing fragile or abrasive ingredients, and for mixing solids or liquids of various particle size, shape and density.



### STANDARD RUGGED CONSTRUCTION

A & M Ribbon Blenders are available in batch working capacities from 1 cubic foot to 380 cubic feet for light, medium and heavy duty blending of powders, pastes, emulsions, and liquids. While A & M has specialized in the manufacture of sanitary stainless steel blenders, other materials of construction are also available including carbon steel, abrasion resistant steel, and other special nickel alloys. The "U" shaped blender shell is a one piece, all welded construction with radiused corners. Ribbon assembly is a three piece construction with bolted coupling flanges for ease of removal of the center ribbon section through the shell top. Agitators are supported on self-aligning, roller bearings in outboard, pillow block

housings. Shafts are sealed with a robust stuffing box packing gland. The entire blender is supported on heavy, tubular legs with cross ties. Dependent on application and customer's needs, selection of drive type, cover design, valve selection, etc. is customized for each individual blender.

A diversified range of peripheral equipment can be incorporated into a complete system, including: filtered bag dump stations, sifters, lump breakers, feed and discharge conveyors, mezzanine platforms, weigh scale hoppers, etc.

### SANITARY CONSTRUCTION

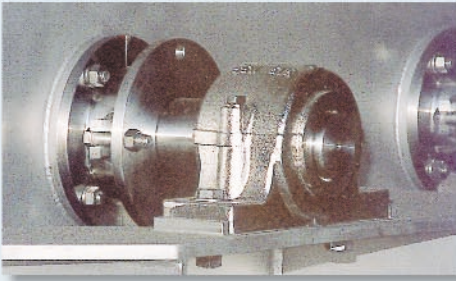
To meet today's more stringent sanitary requirements in the food and pharmaceutical industry, close attention is given to ensure our equipment satisfies strict GMP standards. All interior welds are continuous, free from cracks and crevices, radiused (1/4" minimum), and ground smooth to a No. 4 (150-180 grit) finish. Agitators are one

piece, solid round bar construction. Shaft seals are split design for ease of maintenance, are constructed entirely of stainless steel, and supplied with either FDA approved Teflon braided packing, or Pure PTFE Chevron seals. Equipment is fully passivated after fabrication.





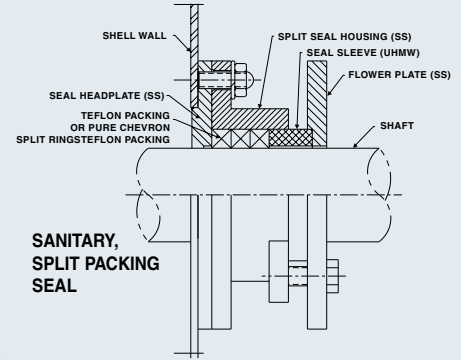
# OPTIONAL FEATURES



## 1. SHAFT SEALS

Based on application, the following seal configurations are available:

- Standard packing gland
- Split, Sanitary packing gland
- Air purge packing gland
- Mechanical face seal
- MECO™ modular seal



## 2. DISCHARGE VALVES

Discharge valve designs can be either manually or pneumatically actuated, and selected from:

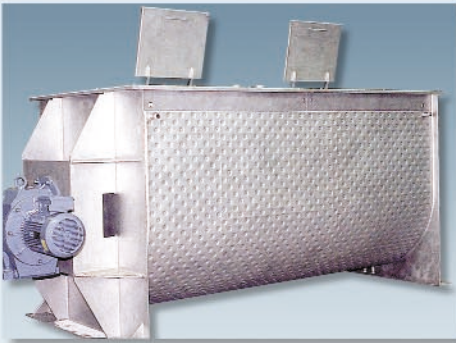
- Flat or curved Slide Gate Valve
- Paddle Valve
- Butterfly Valve
- Flush Contour or Plug style Valve
- Iris Diaphragm Valve
- Spherical Disc Valve
- Ball Valve



## 3. AGITATOR DESIGNS

Various agitator arrangements can be selected from:

- Double Ribbon, center discharge (standard) for most solids blending
- Interrupted Outer Ribbon, center discharge for poor flowing materials
- Combination Ribbon/Paddle design.
- Paddle for fragile and abrasive products
- Twin Shaft Ribbon (single and double ribbon flights), end discharge. (Illustrated)

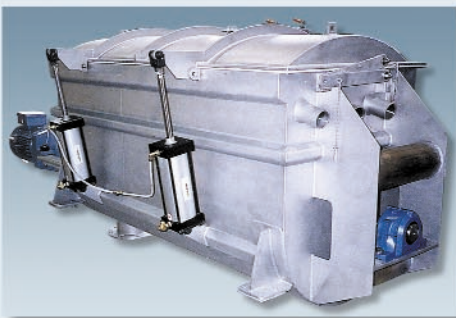


## 4. HEATING/COOLING JACKET

Dimpled or labyrinth heating/cooling jackets are available complete with insulation and protective sheathing, and optional thermowells.

## 5. HIGH SPEED CHOPPERS

High speed choppers can be supplied on paddle blenders for the dispersion of either liquid or solid minor ingredients and to control agglomeration.



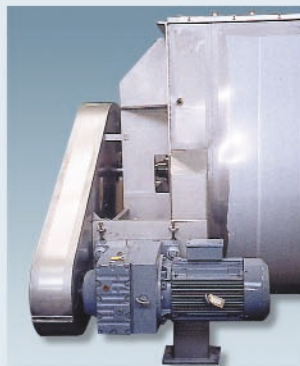
## 6. COVER ASSEMBLY

All blenders are supplied with either one, two, or three piece customized cover assembly, dependent on blender size. Each is supplied with hold down clamps, lift handles, gasket, and safety switch on hinged covers. Removable screen grids can be supplied under hinged covers, when it is preferred to load the blender with cover open and agitator running.

Special vacuum covers can be furnished for vacuum loading of ingredients or for drying applications. (Illustrated)

## 7. AGITATOR DRIVE SYSTEM

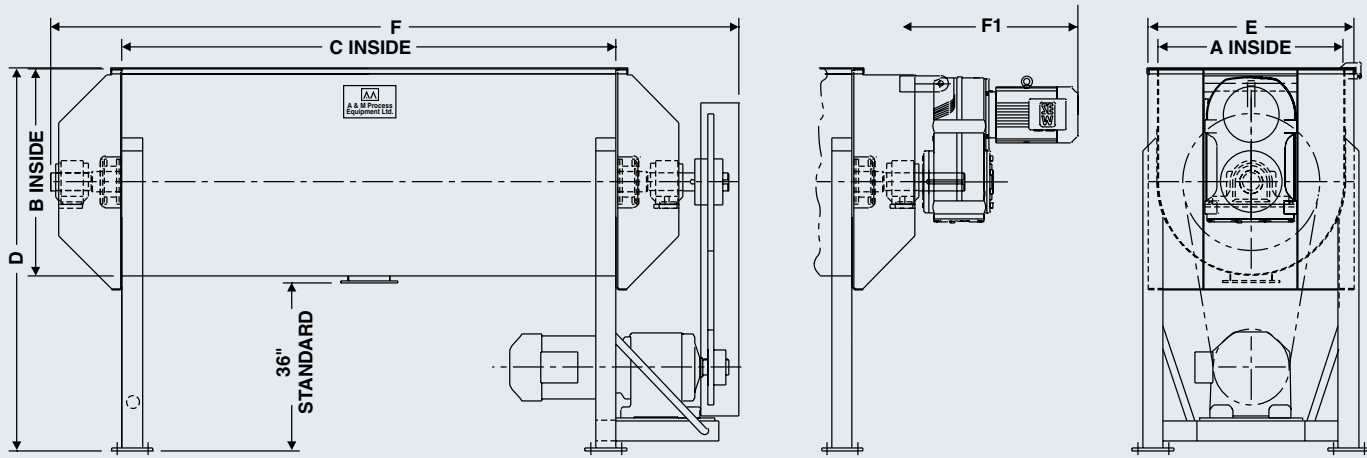
A variety of drive systems are available. For motor horsepower up to 30 HP, an integral, shaft-mounted, parallel/helical gear motor is supplied. Where space limitations exist, right-angled, helical-bevel reducers can be utilized at premium cost. For applications exceeding 30 HP, a foot-mounted gear motor with chain drive is typically recommended. Electronic variable speed units can be offered.



## 8. ELECTRICAL CONTROLS

Standard motor starter control packages, pre wired and installed on the blender frame can be supplied in a variety of electrical classifications. Advanced PLC controllers connected to Operator Interface Displays can be customized to customer's needs.





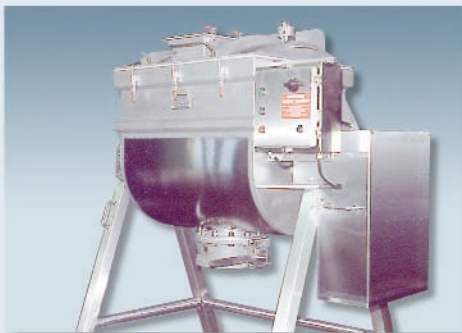
Model RB	Working Cap Cu.ft.	SHELL Inches			DIMENSIONS Inches				Discharge Opening	Material 20-45 lbs.		Material 46-65 lbs.	
		A	B	C	D	E	F	F1		HP	RPM	HP	RPM
10	1	12	15	18	53	14	N/A	50	3	1/2	60	1	55
30	3	14	17	36	55	16	N/A	70	4	1	60	2	55
50	5	16	19	44	57	19	N/A	78	4	1 1/2	60	3	55
80	8	20	23	44	61	23	N/A	83	5	2	60	5	55
100	10	21	24	48	62	24	N/A	90	5	3	60	5	55
140	14	24	27	56	65	27	N/A	101	5	5	60	7 1/2	55
170	17	24	27	66	65	27	N/A	111	6	5	60	7 1/2	55
200	20	26	30	72	68	29	N/A	117	6	5	55	7 1/2	50
250	25	28	32	72	70	31	N/A	123	6	7 1/2	50	10	45
300	30	30	34	78	72	34	N/A	129	6	7 1/2	50	10	45
350	35	32	36	78	74	36	N/A	131	6	10	50	15	45
400	40	32	36	84	74	36	N/A	139	6	10	50	15	45
500	50	34	38	96	76	38	N/A	155	6	10	45	15	40
600	60	36	40	96	78	40	134	159	8	15	40	20	35
700	70	40	46	96	84	45	133	160	8	20	35	25	30
800	80	42	48	96	86	48	138	164	10	25	25	30	20
1000	100	42	48	120	86	48	162	188	10	25	25	30	20
1200	120	48	54	120	92	54	162	188	10	25	25	30	20
1500	150	52	58	120	96	58	162	188	10	25	25	30	20
1800	180	56	62	120	100	62	162	188	10	25	25	30	20
2500	250	60	68	144	106	66	186	N/A	10	30	25	40	20
3000	300	66	74	144	112	72	189	N/A	10	30	20	40	15
3800	380	74	82	144	120	80	189	N/A	12	30	20	40	15

\* All dimensions are approximate and subject to certification by A & M Process Equipment.

### Specialized Blender Designs



Paddle Blender w/Tilting Shell



Wet Granulator w/Vacuum Cover



Paddle Blender w/Bag Dump Hood



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