

## Productivity

Besser understands that quality concrete is the most critical component in the production process and that the quality of the concrete depends heavily upon the mixer. Besser manufactures standard spiral ribbon batch and single shaft slump mixers. Each mixer is designed to provide homogeneous mixes to meet specific industry requirements.

## Quality

Quality is the hallmark of Besser machinery. Highly skilled staff follow the stringent Besser Quality System during the design, manufacture, assembly and testing of each mixer.



*Spiral Ribbon Batch Mixer*



*Single Shaft Slump Mixer*

# Spiral Ribbon Batch Mixer

The industry standard for production

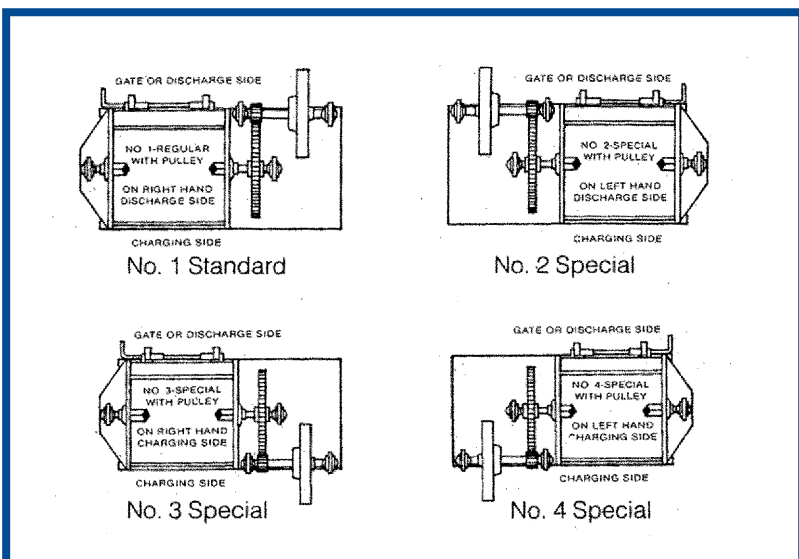
## Standard Features

Gentle mixing and time-tested features make the batch mixer an industry favorite. Specially designed spiral blades and figure 8 mixing action assure consistent and complete mixing every batch. This low shear mixer offers low material degradation. The batch mixer is perfect for cinder, lightweight and fine gradation materials and is an industry standard for concrete products.

Single shaft ribbon mixers are available in a wide range of sizes from 50 – 160 cubic foot (1.4 – 4.5 cu m) compacted output capacity. The low profile of the mixer means it requires less overhead room than conventional mixers. The design of the mixer allows for precise control of the discharge rate.

- Mixes dry and semi-dry materials
- Cleaning rings minimize build-up of material on shaft and blade arms
- Ni-Hard abrasion resistant blades and drum liners extend wearability
- V-cutout in mixer end sections make removal of blade shaft easy when necessary
- Electric motor, sized to meet individual job requirements
- Time proven design incorporates heavy-duty pulley shaft, fully enclosed anti-friction bearings and welded steel bearing supports
- Precision machined gears are completely housed and run in a bath of oil to minimize mechanical friction
- Automatic lubrication system

Batch Mixer Specifications							
MODEL	cu ft	50	60	80	100	120	160
	cu m	1.4	4.7	2.3	2.8	3.5	4.5
CAPACITY	lb	5000	6000	8000	10,000	12,000	16,000
	kg	2270	2720	3630	4540	5440	7260
MOTOR HOUSEPOWER	hp	30	40	75	100	125	(2) 75
	kW	22.3	29.8	55.8	74.5	93.2	22.8
BLADE SHAFT RPM		20	20	18.5	18.5	18.5	15.7
WIDTH	in	7' 1"	7' 1"	9' 2-3/4"	9' 2-3/4"	9' 2-3/4"	9' 6-1/4"
	mm	2160	2160	2810	2810	2810	2900
HEIGHT	in	6' 0"	6' 0"	6' 8"	6' 8"	6' 8"	7' 2-1/4"
	mm	1830	1830	2030	2030	2030	2270
LENGTH	in	13' 0"	13' 0"	14' 2"	14' 2"	14' 2"	17' 2-1/4"
	mm	3960	3960	4320	4320	4320	5240
WEIGHT	lb	13,000	13,200	22,000	22,500	23,500	33,000
	kg	5890	5980	9970	10,190	10,660	14,970
AIR REQUIREMENTS	cu ft/min	2.85	2.85	2.85	2.85	2.85	3.75
	sq m/min	0.08	0.08	0.08	0.08	0.08	0.11
WATER SUPPLY INLET (inside diameter)	in	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"
	mm	38	38	38	38	38	38



The batch mixer discharges onto a metering conveyor.

# Single Shaft Slump Mixer

The industry standard for low slump concrete production operations



Gentle mixing and time-tested features make the slump mixer an industry favorite for low slump concrete. Specially designed spiral blades and figure 8 mixing action assure consistent and complete mixing every batch.

This low shear mixer offers low material degradation. The slump mixer is perfect for precast, prestress or construction site production and is adaptable to all types of central mix operations.

Single shaft ribbon mixers are available in a wide range of sizes from 2 – 10 cubic yards (1.5 – 7.6 cu m) compacted output capacity. The low profile of the mixer requires less overhead room than conventional mixers. The mixer design allows for precise control of the discharge rate.

## Standard Features

- Mixes dry and semi-dry materials
- Cleaning rings minimize build-up of material on shaft and blade arms
- Ni-Hard abrasion resistant blades and drum liners extend wearability
- V-cutout in mixer end sections make removal of blade shaft easy when necessary
- Electric motor(s), sized to meet individual job requirements
- Time proven design incorporates heavy-duty pulley shaft, fully enclosed anti-friction bearings and welded steel bearing supports
- Precision machined gears are completely housed and run in a bath of oil to minimize mechanical friction
- Automatic lubrication system



Batch Mixer Specifications						
MODEL	cu ft	2	3	4	6	10
	cu m	1.5	2.3	3.0	4.6	7.6
CAPACITY	lb	8000	12,000	16,000	24,000	40,000
	kg	3630	5440	7260	10,890	18,150
MOTOR HOUSEPOWER	hp	40	75	100	(2) 75	(2) 100
	kW	29.8	55.9	74.6	(2) 55.9	(2) 74.6
BLADE SHAFT RPM		21	18	18	15.7	15.7
GATE SIZE	in	12-1/2" x 14-1/4"	12-1/2" x 16-1/4"	12-1/2" x 16-1/4"	18-1/4" x 19"	18-1/4" x 19"
	mm	318 x 362	318 x 413	318 x 413	464 x 483	464 x 483
DRIVER DESIGN		belt-gear	belt-gear	belt-gear	belt-chain	belt-chain
MIXER DRUM THICKNESS	in	1-1/8"	1-1/8"	1-1/8"	1-1/4"	1-1/4"
	mm	29	29	29	32	32
SHELL THICKNESS	in	3/8"	3/8"	3/8"	1/2"	1/2"
	mm	10	10	10	13	13
WATER SUPPLY INLET (inside diameter)	in	1-1/2"	3"	3"	6"	6"
	mm	38	76	76	152	152
WIDTH	in	8' 2-5/8"	9' 2-3/4"	9' 2-3/4"	8' 6-1/2"	8' 9"
	mm	2510	2810	2810	2600	2670
HEIGHT	in	6' 0"	6' 8"	6' 8"	7' 5-1/2"	7' 5-1/2"
	mm	1830	2030	2030	2270	2270
LENGTH	in	13' 0"	14' 2"	14' 2"	16' 5-3/4"	21' 7"
	mm	3960	4320	4320	5020	6580
WEIGHT	lb	12,225	23,500	23,700	31,000	45,000
	kg	5550	10,660	10,750	14,060	20,410

# Optional Enhancements

*The industry standard for block and pipe production*

## **Throw-Back Blades**

Throw-back blades reduce mix time, material build-up and wear on the shaft liners while improving head liner life and providing a more homogeneous mix.

## **Ribbon Blades with Replaceable Liners**

Eight Ni-Hard wear liners, attachment hardware and replaceable hardware protectors prevent excessive blade wear.

## **Cleaning Rings and Blade Shaft Covers**

Four cleaning rings help prevent buildup of concrete on the shaft and the two replaceable split blade covers prevent shaft wear.

## **Motor Starter**

The soft start uses less energy to start the motor than a standard motor starter. This option includes a part winding motor starter in NEMA 1 enclosure for 460 V, 3 phase, 60 Hertz (other voltages are available). It also includes a disconnect circuit breaker with lockable operating mechanism, thermal overload protection, and start-stop pushbuttons. The producer must supply the starter mounting, wire and conduit to motor.

## **Hydraulically Operated Clean-Out Gate**

Clean-up is easier with a 12" x 16" (305 mm x 406 mm) hinged gate located at the bottom center of the mixer shell. It includes a latching hinge mechanism, hydraulic cylinder and mounting bracket, a solenoid control valve with flow control, selector switch and all necessary wiring, plumbing and hardware.

## **Zero-Speed Interlock Safety Switch**

The safety switch will not let the front panel be opened until the blade shaft assembly has slowed to a speed of less than 0.25 rpm. Before the mixer can start, the front panel must be closed with the switch actuator blade inserted into the switch. A zero-speed proximity sensor controls the electrical release of the actuator blade via the zero-speed relay. With the emergency stop switches open (pulled out) and the MCR circuit de-energized, when the sensor senses a blade shaft speed of less than 0.25 rpm, the zero-speed switch releases and the front panel can be opened.