

# SPL

Parallel-Flow Drum Mixers



ADM's asphalt plant ratings are conservative when compared to NAPA's publication "IS-52" under "Performance Expectations".

Benchmark conditions used to determine productivity are 325°F fan gas temperature, 300°F material temperature, 70°F ambient air temperature, 650 feet above sea level, 50% excess air, 10% casing losses, 5% leakage air, 5% moisture removal, 5% liquid asphalt and 20% minus No. 8 materials.

Variations to these general conditions will affect production.

#### Colombia

Centro Empresarial Paseo Real Of. 223 – Bogotá D.C.  
Tel. 571 620 2926 - 571 671 8163. Fax 571 657 0034  
Email: [ventascolombia@dadeequipment.com](mailto:ventascolombia@dadeequipment.com)

#### U.S.A.

8260 NW 70 Street – Miami, Florida 33166  
Tel 305 717 9901 - 305 392 1665. Fax 305 717 5449  
Email: [sales@dadeequipment.com](mailto:sales@dadeequipment.com)

Representantes para Colombia.

[www.dadeequipment.com](http://www.dadeequipment.com)

**Dade Equipment, Inc.**  
Asphalt Plants & Crushing Equipment

## DRUM-MIXER SKID

Drum-Mixer (dimensions table 1.2) rolled from high strength alloy steel plate.

Tires forged from solid steel ingots, hardened, then tempered to between 220 and 260 Brinell.

Trunnions hardened to between 550 and 650 Brinell feature two Sealmaster pillow block bearings each.

Drives (specifications table 1.2) with features that include Dodge TXT Series shaft mounted gearbox reducers, v-belt drives, open-mesh belt guards and 1800-RPM high efficiency motor(s).

Guide rollers feature two Dodge thrust bearings each.

Weld-in bent plate flight design.

Fast feed slinger (specifications table 1.2) with features that include channel frame conveyor, adjustable bolt on receiving chute, lagged head pulley, shaft mounted gearbox reducer, v-belt drives, open-mesh belt guard, 1800-RPM high efficiency motor, multi-ply belt, 4" diameter CEMA-B 20° angle trough idlers and adjustable tail shaft assembly with self-cleaning winged tail pulley.

Oversized discharge breaching with features that include high temperature dust seals around drum, manhole access with quick release clamps on access door and side outlet, material discharge chute.

Heavy-duty "I"-beam skid with bolt-on support legs to grade.



Table 1.2

DESCRIPTION	SPL30	SPL60	SPL110
Drum-Mixer Size	40" Dia. x 16'-0" Long	54" Dia. x 24'-0" Long	62" Dia. x 26'-0" Long
Drive/Motor Specifications	2 Drives 5 Hp Motors	4 Drives 7½ Hp Motors	4 Drives 10 Hp Motors
Fast Feed Conveyor	18" Wide Belt 2 Hp Motor	24" Wide Belt 2 Hp Motor	24" Wide Belt 3 Hp Motor

## VENTURI WET SCRUBBER

Delete when alternative baghouse filter is specified.

Wet collector (rating table 1.3).

Barrel (dimensions table 1.3) formed from heavy-duty steel plate.

Venturi and straight duct sections lined with AR400 wear plate.

Elbow duct section lined with chrome carbide.

Venturi includes remote-manual control switch mounted in control panel.

Twin City RTF23 Series exhaust fan with features that include Corten wheel and inlet cone, self-cleaning wheel design, wear pads on impeller blades, anti-friction heavy duty split spherical roller bearings, v-belt drives, open-mesh belt guard and 1800-RPM high efficiency motor (horsepower table 1.3).

Exhaust fan damper includes remote-manual switch mounted in control panel.

EPA Approved test ports in exhaust stack.

60-PSI, 60-GPM water pump features 5-Hp, 1800-RPM high efficiency direct drive motor.

VWS mounted integral to drum-mixer skid.



Table 1.3

DESCRIPTION	SPL30 VWS4016	SPL60 VWS5424	SPL110 VWS6226
Collector Rating	5,500 ACFM	11,000 ACFM	18,000 ACFM
Scrubber Barrel	40" Dia. x 6'-0" Long	60" Dia. x 8'-0" Long	68" Dia. x 10'-0" Long
Exhaust Fan	20 Hp Motor	40 Hp Motor	75 Hp Motor

## COLD FEED BIN

Delete when alternative bin system is specified.

Capacity (table 1.4) based on material densities equal to 110-Lbs/ft<sup>3</sup>.

Walls sheared from 1/4" thick high strength steel plate with features that include 60° angle steep sloped sides and continuous weld both inside and out.

Top opening (dimensions table 1.4).

Angle iron reinforced top rails and midsection.

Bent steel plate support legs.

Self-relieving, tapered discharge opening.

Adjustable ½" thick rubber skirt-boards.

Adjustable radial discharge gate.

Bin feeder with features that include lagged head pulley, shaft mounted gear-box reducer, v-belt drives, open-mesh belt guard, 1800-RPM high efficiency motor (horsepower table 1.4), multi-ply belt (dimension table 1.4), 4" diameter CEMA B 20° angle trough idlers and adjustable tail shaft assembly with self-cleaning winged tail pulley.

Automated systems include weigh bridge with features that include rugged two piece fall through frame, single high capacity platform load cell and wind shroud protection.

CFB integral to drum-mixer frame.



Table 1.4

DESCRIPTION	SPL30 CFB8	SPL60 CFB20/2	SPL110 CFB20/2
Capacity	8 Ton	20 Ton Split Bin	20 Ton Split Bin
Top Opening	10'-0" Wide x 8'-0" Deep	12'-0" Wide x 9'-0" Deep	12'-0" Wide x 9'-0" Deep
Bin Feeder	18" Wide Belt 2 HpDC Motor	30" Wide Belt 3 HpDC Motor	30" Wide Belt 3HpDC Motor

## DRAG CONVEYOR

Delete when alternative surge system is specified.

Ratings (table 1.5) based on asphalt material densities equal to 120-Lbs/ft<sup>3</sup>.

Conveyor (dimensions table 1.5) features full-length steel casing covers hinged in 5'-0" long sections.

Full-length bottom casing liner, 1/2" thick 400 Brinell hardened AR wear resistant steel plate.

Full-length casing sideliners, 6" high x 3/8" thick 400 Brinell hardened AR wear resistant steel plate.



Weld on bent plate steel receiving chute

Pneumatically operated batcher, 1,500-Lb on SPL30, 3,500-Lb on SPL60 - SPL110.

Drives with features that include 500 Brinell hardened head shaft sprocket bolted to a hardened-segmented rim, shaft mounted gearbox reducer, v-belt drives, open-mesh belt guard and 1800-RPM high efficiency motor (horsepower table 1.5).

Through hardened roller chain (specifications table 1.5) features heavy-duty drag slats cut from high strength bar stock steel.

Hold down support idlers with anti-friction bearings.

Manually adjustable tail shaft assembly.

Emergency shutdown current relay disconnects.

DC mounted integral to drum-mixer skid.

Table 1.5

DESCRIPTION	SPL30 DC45	SPL60 DC110	SPL110 DC150
Drag Slat Rating	45 T/H	110 T/H	150 T/H
Casing	16" Wide x 17'-0" Long	20" Wide x 30'-0" Long	20" wide x 33'-0" Long
Drive Motor	5 Hp	20 Hp	20 Hp
Chain Specifications	Single 2" Pitch	Single 4" Pitch	Single 4" Pitch

## BURNER EQUIPMENT

Hauck #2 oil fired burner (thermal output table 1.6)

Fuel oil manifold with safety shutoff valves.

Hauck TBA Series, high-pressure blower features 3600-rpm high efficiency direct drive motor (horsepower table 1.6).

Table 1.6

DESCRIPTION	SPL30 NM260	SPL60 SJ150	SPL110 SJ200
Burner Output	13,000,000 Btu/hr	27,900,000 Btu/hr	40,300,000 Btu/hr
Blower Motor	10 Hp	2 Hp	40 Hp



## PUMPING SYSTEMS

Air compressor (ratings table 1.7) includes v-belt drives, open-mesh belt guard and 3600-RPM high efficiency motor.

Tach-feedback metering asphalt pumping system (ratings table 1.7) includes one pump, v-belt drives, open-mesh belt guard and 1800-RPM high efficiency motor.

Positive displacement fuel oil pumping system (ratings table 1.7) includes one pump and 3600-RPM high efficiency direct drive motor.



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Table 1.7

DESCRIPTION	SPL30	SPL60	SPL110
Air Compressor	30 Reservoir 3 Hp Motor	60 Reservoir 5 Hp Motor	60 reservoir 5 Hp Motor
Asphalt Pump	15 GPM 3 Hp Motor	20 GPM 3 Hp Motor	32 GPM 3 Hp Motor
Fuel Oil Pump	3 GPM ½ Hp Motor	4.5 GPM ½ Hp Motor	6 GPM 1 Hp Motor

## CONTROL SYSTEMS

### Plant Control System

AC display in GPM or LPM.

Motor control center with motor starters and circuit breaker protection mounted to drum-mixer frame.

Material discharge temperature display.

Relay logic (RL) control panel mounted to plant frame features 50' long control cables with quick disconnects.



### Burner Control System

Automatic controls with manual backup.

Process temperature controller.

High stack temperature limit.

Flame safety includes ultraviolet sensor(s).

Multi-fuel selector switch for dual fuel applications.

Stack damper positioning switch.

## SPL Series Equipment Options

### ADP-020 Process Computer by Systems, Inc.

Designed to measure and control the liquid asphalt flow rate so that the asphalt blend is accurately interlocked to the measured aggregate flow.

Controller configurable to include virgin belt scale, recycle belt scale and up to 4 potentiometrically controlled feeders.

Controller programmable to either English or metric units of measurement.

Full feature data recordation output is available. Printer with cables available at additional cost.

Asphalt pumping rate interlocked to virgin and recycle aggregate scales.

Volumetric control of VFAC or DC motor powered feeders.

Single calibration entry for each piece of connected equipment.

Liquid asphalt temperature compensation.



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## ADP-020 Process Computer – Continued

### Screen Displays:

- Aggregate scale and feed bin material use totals.
- Integral virgin and recycle aggregate scale totalizers.
- User installed aggregate moisture content.
- Asphalt temperature and asphalt blending as a percentage of mix.
- Mix temperature and mix rate in tons-per-hour.

## Gas Pressure Control Regulator

1098-EGR with pilot control regulator by Fisher.

## Multi-Fuel Burner System

Natural Gas addition to the standard burner equipment.

## Non-Standard Voltages

For voltages other than 460v/3ph/60hz.

## Portability Package

### SPL30

- Heavy-duty "I" beam frame.
- Fifth wheel kingpin trailer hitch.
- Landing gear with manual hand crank.
- Hinge down support legs to grade.
- Leaf spring suspension.
- Electric brakes.
- Single tires on three axles
- Spoke wheels
- 9-14.5 tires.
- Mud flaps.
- US DOT approved lighting.



### SPL60 - SPL110

- Heavy-duty "I" beam frame.
- Fifth wheel kingpin trailer hitch.
- Landing gear with manual hand crank.
- Hinge down support legs to grade.
- Leaf spring suspension.
- Air brakes.
- Dual tires on tandem axles
- Five spoke wheels
- 11:R22.5 radial tires.
- Mud flaps.
- US DOT Approved lighting.



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