CMI CONCRETE MACHINERY INC.

CONCRETE PAVING

SF-2

VARIABLE WIDTH CONCRETE SLIPFORM PAVER

SF-2 CONCRETE SLIPFORM PAVER

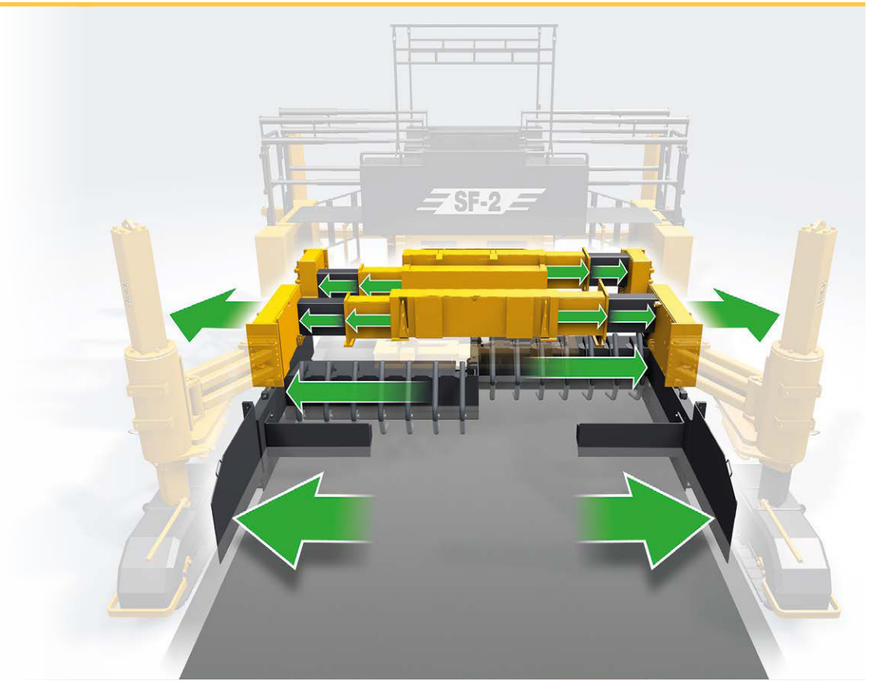
WHEN VERSATILITY IS A NECESSITY

The CMI SF-2 paver is designed to be the most versatile and productive concrete slipform paver on the market, featuring a unique dual telescoping main frame and variable width paving mold it easily adapts to changing widths from site to site for maximum cost-effectiveness and flexibility.

The SF-2 paver is the only paver in the industry which features a unique two piece hydraulically operated dual telescoping main frame and paving mold, (left and right) which can extend from 8 ft 3 in to 16 ft 5 in (2.50 m to 5.00 m) wide without the need for frame or mold inserts, making transport between multiple job sites possible in a single day.

For larger paving projects the main frame can fully expand to accomodate additional bolt on mold extensions and hydraulic vibrators to extend the paving width up to 20 ft (6.00 m) wide in under an hour, without any additional frame extensions.

While the optional modular off-set paving mold system can expand its capability even further by attaching to either side of the machine for curb and gutter, median barrier or parapet wall molds and is hydraulically adjustable for rapid form changes.



HYDRAULIC TELESCOPING FRAME AND PAVING ELEMENT ADJUSTMENT

The unique CMI SF-2 hydraulic telescoping frame and paving mold design is particularly useful when the paver has to change paving width many times during the course of a project or on a daily basis.

To minimise the time to adjust paving widths, the SF-2 also features quick release mounts for rapid inserting or removing of the hydraulic vibrator and mount assemblies as required.

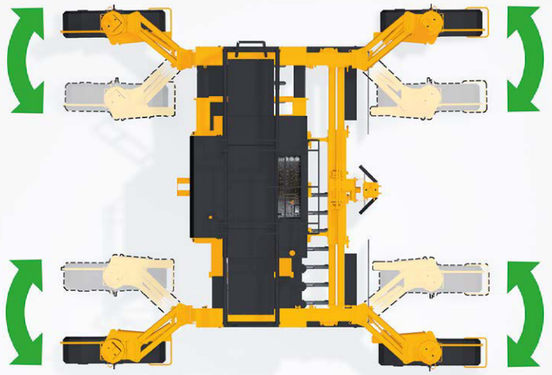
The whole operation can be carried out safely from the operators platform and ground level. No crane, lifting or jacking devices are necessary for any width change of the paver.

Varying paving widths can be achieved yet still maintaining a crown in the centre line of the slab, if required. The plow assembly and pan finisher also adjust to width changes automatically as the frame extends.

SWING AND STEER ARMS

Four parallelogram swing leg arms and hydraulic power steering with crab co-ordinated front and rear steer gift the SF-2 with superior maneouverability. The leg mounts can also be vertically relocated on the leg to accommodate different ground level conditions if necessary.

The fully adjustable sensor jacks also provide automatic grade and steer control to follow a stringline or to follow a previously laid slab or profile if preferred.

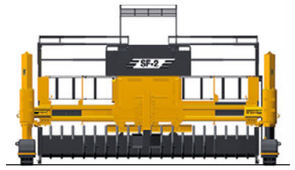


SF-2 SLIPFORM PAVER

Using the SF-2's hydraulic action frame and paving element adjustments, an operator can quickly and single-handedly make adjustments for entry/exit lanes, tapers, variable width streets and other geometric paving challenges.

The SF-2's rigid, telescopic tubular steel frame makes the width-change process simple, stepless and infinitely adjustable and also provides rapid transforming from transport mode to paving mode in less than an hour.

TRANSPORT POSITION



FULLY EXTENDED OPERATING POSITION

LED LIGHTING
Powerful LED lighting on front and rear for night time operations.

HIGH PRESSURE WASHER
When finished paving, an onboard 2000psi (138 bars) high pressure wash-down system makes for fast machine clean up.

AIR COMPRESSOR
Onboard air compressor and reservoir suitable for air operated hand tools.

OPERATING PLATFORM
Excellent all round operator visibility with fold down canopy.

CONTROL SYSTEM
User friendly CAN-BUS control system monitors all electronic systems on paver with hydraulic gauges to monitor prime circuits with vandal proof lockable cover.

WATER STORAGE
Additional 99 gal (375 L) water capacity in sides of main frame end cars.

SWING & STEER ARMS
Hydraulic swing legs enable optimum trackline location and each track has hydraulic power steering with crab co-ordinated front and rear steer for superior maneuvrability.

MOLD RELEASE AGENT RESERVOIR
Conveniently located for applying release agent to paver mold prior to paving helps the cleanup process at end of the working day.

PAN FINISHER
Hydraulic variable speed drive, automatically changes angle of attack of finishing pan at end of each pass across slab. Automatically extends & retracts with paving main frame width.

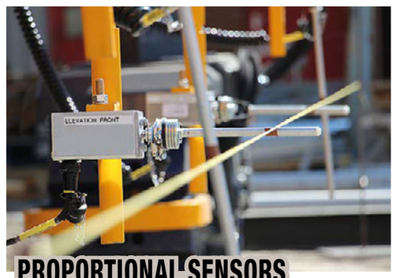
SENSOR MOUNTING ARMS
Swing-away sensor mounting arms and preset operator reference points aid fast set up for paving and speedy reconfiguration for transport.

POWERPLANT
Efficient Perkins 173 hp (129 kW) Tier 4 Final / Stage 3B turbo-charged, charge air cooled diesel engine with low noise and vibration levels.

VARIABLE WIDTH PAVING MOLD
Infinitely variable paving width from 8 ft 3 in to 20 ft (2.5 - 6m). Features full crowning ability, quick fix vibrator mounting system and 2 x 105 gal (400 L) additional water storage reservoirs in the paving mold tanks.

TRACTIVE SYSTEM
Two-speed motor/gearbox drives on each of the 4 tracks receives power through a "closed loop" hydraulic circuit including a "posi-trac" system equalizing power at each track drive, supplies a travel speed upto 90 ft/min (24 m/min).

Features



PROPORTIONAL SENSORS
The SF-2 maintains precise control of elevation and steering through the ultra-accurate proportional sensors control system for stability and smooth paving performance.

QUICK MOUNT VIBRATORS
Using a unique mounting system, vibrators can be easily added or removed in just 10 minutes, minimizing delay during width adjustments.

CONTROL SYSTEM
User friendly CAN-BUS control system with plug-and-play 3D wireless capability. Monitors all electronic systems such as off stringline warning and locks hydraulic grade & steer systems.

PLOW ASSEMBLY
Optional hydraulically driven plow, variable speed with manual depth control, adjusts automatically with telescoping mainframe width.

REMOTE CONTROL
Repositional remote control with magnetic backing provides external operator controls of mold hydraulic side plates.

MODULAR OFF-SET PAVING SYSTEM
Optional curb and gutter hydraulically adjustable modular form system mounted on left or right side enables quick profile changes, concrete delivery conveyor, or median barrier and parapet wall mold and feed hopper.

MODULAR OFF-SET PAVING MOLD SYSTEM

The SF-2 can be further adapted by attaching the modular off-set paving mold system to either side of the machine for curb and gutter, median barrier or parapet wall molds and is hydraulically adjustable for rapid form changes. In addition, the SF-2 can also be fitted with either one or two conveyor systems to feed concrete to the off-set paving mold depending on the set up of the job site.

The high speed inclined conveyor receives concrete from the truck mixer and transfers the materials onto a cross feeder conveyor, which in turn feeds the materials left or right depending on which side the paving mold is on the paver. Both conveyors are variable speed and reversible which is particularly useful where live highways are being paved and a minimum working width is required.

CURB & GUTTER

DRAINAGE CHANNEL

MEDIAN BARRIER / PARAPET WALL

FEED VEHICLE PUSH BAR

FEED TRANSFER CONVEYORS

ADDITIONAL OPTIONS

PLOW ASSEMBLY

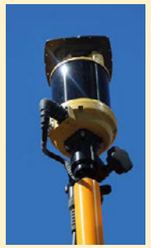
The plow assembly has a telescoping sub frame which adjusts with mainframe width changes automatically without the need for sub frame inserts.

- Variable transverse speed in automatic or manual.
- Manually adjustable hydraulic depth control.

ROTARY FINISHER

The rotary finisher can be used where a pan finisher is not practical, such as narrow cycle path slabs, where tight radii occurs etc.

The three finishing blades rotate as it traverses across the width of the slab, in auto or manual mode.



3D CONTROL SYSTEM

The SF-2 can be fitted with most 3D / GPS / Total Station Control Systems available on the market, using plug-and-play technology.

- Ease of set up and reduces the need for a sensor line.

LIGHTING

The SF-2 can be fitted with four powerful 24v Halogen working lights for night time operation.

TECHNICAL SPECIFICATIONS

CHASSIS AND DRIVE SYSTEM

VARIABLE WIDTH
Hydraulically extending of the frame both sides by up to 6 ft (1.8 m) allows paving from 8 ft 3 in to 20 ft* (2.5 m - 6.0 m)

ENGINE
Perkins 173 hp (129 kW) Tier 4 Final / Stage 3B turbo-charged and charge air cooled diesel engine

FUEL TANK
79 gal (300 L) capacity fuel tank with level gauge & lockable filler cap

WATER SYSTEM
99 gal (375 L) water tank with high pressure water / wash system with hose and nozzle

LEGS
4 hydraulically actuated square to round leg columns

TRACKS
4 x 5 ft 3 in (1.6 m) long and 14 in (356 mm) wide steel tracks with polyurethane track pads

STEERING
Co-ordinated and crab steering, 35° left or right of centre

DRIVE
Hydrostatic drive from engine mounted variable displacement pump to track frame mounted motors and gearboxes

OPERATING SPEED
0 - 22 ft/min (0 - 6.7 m/min)

TRAVEL SPEED
0 - 90 ft/min (0 - 24 m/min)

SHIPPING DIMENSIONS AND WEIGHTS

HEIGHT:	10 ft 2 in (3.1 m)	**WIDTH:**	8 ft 6 in (2.6 m)
LENGTH:	23 ft 11 in (7.3 m)	**WEIGHT:**	26.1 t (24 mt)

* Using additional bolt-on mold extensions

PAVING KIT

PLOW
Variable width, telescoping sub frame, adjusts with mainframe width changes, variable speed and manual hydraulic depth control

MOLD
Hydraulically adjustable tandem mold with built in water ballast storage of 105 gal (400 L) per tank, expandable with additional bolt-on mold extensions

VIBRATORS
15 hydraulically driven with quick mount

VIBRATOR FLOW CONTROL
Individual variable control from operator's platform

PAN FINISHER
Variable width, telescoping sub frame, adjusts with mainframe width changes

MODES:	Manual or automatic
ADJUSTMENTS:	Transverse speed control, smoother angle, reversing functions and pan weight reduction

CONTROL

STEER:	2 electronic steer sensors with steer wands
GRADE:	4 electric grade proportional sensors with grade wands
SLOPE:	Electric proportional slope control
MANUAL:	Elevation control switch mounted at operator's panel provides manual control of leg extension

PAVING WIDTH
8 ft 3 in to 20 ft (2.5 m - 6.0 m)

PAVING DEPTH
Up to 15 ¾" (400 mm)

OPTIONAL EQUIPMENT

- 1 or 2 conveyor belts or augers for off-set paving
- Side-mounted mold system for curb & gutter, drainage channel, median barrier or parapet wall molds
- Hydraulic expandable paving mold system
- Rotary or pan finisher
- Plow assembly
- 3D control system

DEALER STAMP

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