

Aut-o-door

Electric Gate Operators
Formerly Manufactured By Richards-Wilcox

32 31 00.11/CRO
BuyLine 6913



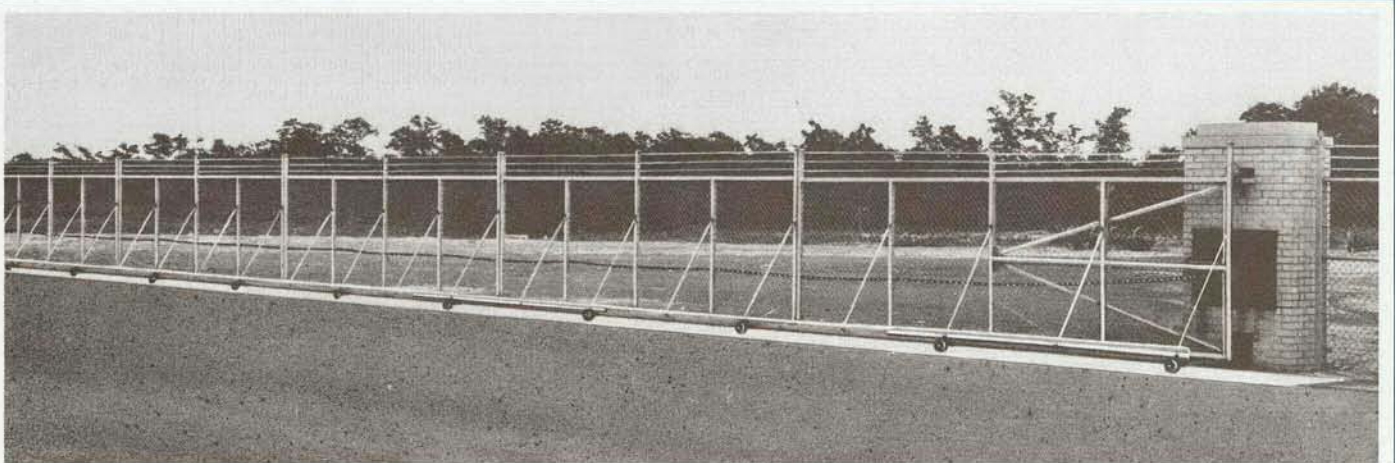
C R O W N
I N D U S T R I A L
O P E R A T O R S



Operator No. 1510



Operator No. 1295



Operator No. 1285



Controlled Security...with Crown Industrial Electric Gate Operators

Formerly manufactured by Richards-Wilcox for over 50 years

Here's a complete quality line of heavy-duty electric operators designed specifically for reliable, efficient gate operation 'round the clock. Crown Electric Gate Operators will effortlessly open and close single-sliding gates of either cantilever or overhead track types, bi-parting gates of either type, single- or double-swing gates, and vertical-lift gates. A complete line to meet all your security needs.

Custom Gate Controls, too, in a wide assortment of control stations, systems and safety devices to handle your individual protection requirements.

Also available . . . experienced Crown Application Engineers for consultation service. And, a wide range of specialty gate hardware for industrial and commercial applications.

Each operator in the Crown line is moved by a unitized modular power train . . . **independently accessible** motors, gear reducers, clutches and brakes. You benefit from less maintenance, faster and less expensive part replacement, and longer life units.

CHECK THESE OUTSTANDING FEATURES...

	No. 1275 Sliding p. 3	No. 1295 Sliding p. 4	No. 1285 Sliding p. 5	No. 1510 Swing p. 6	No. 1263 Vertical p. 8
Gearhead motor—with ample reserve power—perfect alignment.	⊗	⊗	⊗		⊗
Instant reversing, top quality ball bearing motor.	⊗	⊗		⊗	⊗
A gearhead motor, instant reversing, for the extra heavy duty 1 H.P. electric operator.				⊗	
Heavy duty disc clutch for safety of equipment.	⊗	⊗	⊗	⊗	⊗
Reliable magnetic brake for positive gate control.	⊗	⊗	⊗		⊗
Sturdy emergency release—for manual operation.	⊗	⊗	⊗	⊗	⊗
Rugged outboard bearing—sealed lubricated ball bearing—for endurance.		⊗	⊗		⊗
Industrial quality reversing starter—with double break, silver-to-silver contacts—115 volt control circuit—with overload and underload protection—with mechanical interlocks—in steel cabinet with padlock attachment.	⊗	⊗	⊗	⊗	⊗
Rotating heavy duty switch for accurate control of "open" and "close" limits.	⊗	⊗	⊗	⊗	⊗
Heavily constructed base, gussets and gate brackets.	⊗	⊗	⊗		⊗
Drive and idler sprockets with high quality roller chain.	⊗	⊗	⊗		⊗
Weather resistant cover—standard.	⊗	⊗	⊗	⊗	⊗
Wide selection of custom controls to meet your automation applications	⊗	⊗	⊗	⊗	⊗
Dependable harmonic action arms for positive gate control—no jerk or slam of gate.				⊗	
Durable totally enclosed reducer—moving parts in a dust-free bath of oil or grease—with oil seals	⊗	⊗	⊗	⊗	⊗
For indoor or outdoor use.	⊗	⊗	⊗	⊗	⊗
One year conditional warranty on operator parts.	⊗	⊗	⊗	⊗	⊗

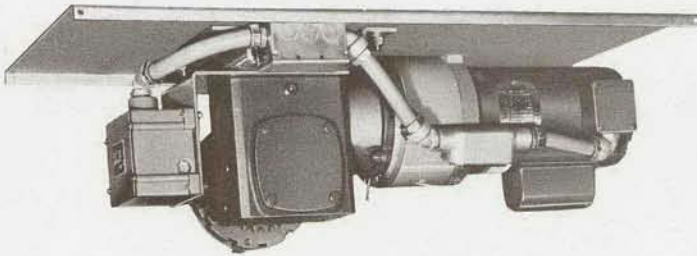
CONTROL STATIONS

Crown features a complete line of top-quality control equipment designed to give you custom control of your gate operator. Price of operators does not include controls...see Controls Catalog CT100.

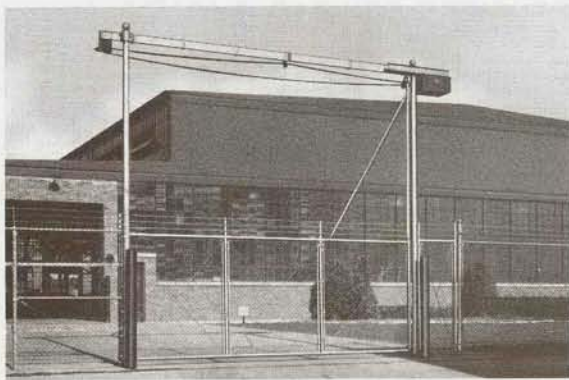
NOTE: We reserve the right to modify or change, without prior notice, any statements or information contained herein. If exact dimensions or specifications are required by the customer certified prints will be furnished without charge by Crown Industrial Operators.



Number 1275 & 1276
Operator Unit



Shown with weather resistant cover removed



Operator No. 1275

NUMBER 1275 & 1276 OPERATING SPEEDS

Single Sliding				Bi-Parting			
Width	CM	Feet Per Minute	CM/Min	Width	CM	Feet Per Minute	CM/Min
8'0"	244cm	45 [9" per sec.]	1372	16'0"	488cm	45 [9" per sec.]	1372
8'0" & wider	244cm	60 [12" per sec.]	1829	16'0" & wider	488cm	60 [12" per sec.]	1829

RECOMMENDED CAPACITIES NUMBER 1275 OPERATORS

Operator [in H.P.]	Max. Area of Gate		Max. Weight of Gate		Approx. Ship. Wt. of Operator	
	[in sq. ft.]	[in sq. M.]				
			Up to 8' wide [244cm] Speed 45'/min [1372cm/min]	8' wide [244cm] or more Speed 60'/min [1829cm/min]		
1/2	200	18.58M	1200lbs 544kg	900lbs 408kg	350lbs 159kg	
1	380	35.30M	2400lbs 1089kg	1800lbs 816kg	395lbs 179kg	

Larger sizes upon application.

RECOMMENDED CAPACITIES NUMBER 1276 OPERATORS

Operator [in H.P.]	Max. Area of Gate		Max. Weight of Gate per pair of Gates		Approx. Ship. Wt of Operator	
	[in sq. ft.]	[in sq. M.]				
			Opening width up to 16' [488cm] each gate travels 45'/min [1372cm/min]	Opening 16' [488cm] or over each gate travels 60'/min [1829cm/min]		
1/2	200	18.58M	1200lbs 544kg	900lbs 408kg	350lbs 159kg	
1	380	35.30M	2400lbs 1089kg	1800lbs 816kg	395lbs 179kg	

Std. Voltage: 115V, 230V, single phase. 208V, 230V, 460V, 3 phase. 3 phase current is recommended
Larger sizes upon application

NUMBER 1275 & 1276

Number 1276
For hard use, heavy traffic

The No. 1275 (single sliding) and No. 1276 (bi-parting) operators were designed for use on top of the gate opening...offering gate security. They are **ruggedly** built and capable of producing years of trouble-free service in high traffic areas in either indoor or outdoor installations. The operator includes a driving chain, take-up bracket and drive unit all mounted to the overhead superstructure.*

In the event of a power failure, the operator is equipped with an emergency release located on the gate chain bracket. The motor and limit switch are pre-wired into a junction box mounted on the base plate.

*Standard units designed for 5" or 6" I-Beam track. (Other sizes or styles available. Consult factory.)

OPERATION

The sliding gates are operated by a continuous horizontal loop of roller chain mounted to the superstructure above the gate opening, and driven by the sprocket connected to the driving unit.

For bi-parting gates, the method of operation is similar. One gate is operated by the bottom roller chain and the other gate is driven by the top chain.

Manual operation of the gates is permitted by a disconnecting device attached to the gate. The driving unit consists of an instantly reversible motor with built-in speed reducer, built-in magnetic brake, safety friction disc clutch, limit switch, and reversing starter with overload and underload protection, all mounted on a heavy steel base protected by a weather resistant cover.

ARCHITECTURAL SPECIFICATIONS

For Numbers 1275 & 1276
Operators for Horizontal Sliding Gates

Electric gate operator shall be built into a compact unit mounted on a heavy hot dipped galvanized steel base. The unit shall consist of a right angle gearhead reversing motor, magnetic brake, safety disc clutch, galvanized weather hood, NEMA rate reversing starter with overload and underload protection and silver to silver contacts, and a chain driven geared type automatic limit switch.

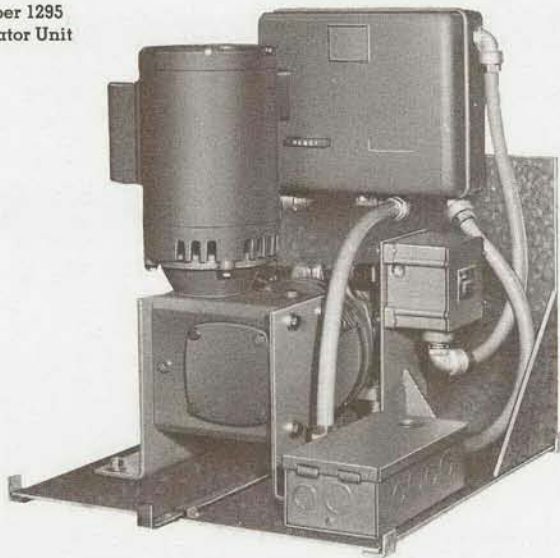
The gearhead motor and magnetic unibrake shall be assembled as one unit with one stage of reduction. The gearhead motor housing shall be of all cast iron construction. Worms shall be rolled from solid blanks of high alloy 8620 steel. Worms receive polishing treatment to maximize efficiency. Seal contact area is super finished. Output shafts of "stress-proof" 1045 alloy, minimum 100,000 psi yield, shall be mounted on heavy duty tapered roller bearings. Double lip oil seals on the output

shaft shall operate on super finished shaft areas to assure oil retention and contaminant exclusion. The magnetic brake with its easily adjustable feature shall be assembled to the motor to make a compact and efficient unit. The automatic limit switch, stops the gates in the fully open or closed position, shall be the precision built gear type which is to be operated with a chain drive from the counter shaft of the gearhead motor. The gate shall be driven with high quality self-adjusting No. 52 roller chain with a minimum ultimate strength of 6100 lbs. (2767 kg.) and heavy brackets to the gate. A simple releasing feature shall be supplied in case of power failure. The chain shall be driven from a heavy duty dependable safety friction disc clutch on the gearhead motor's counter shaft. This safety clutch shall protect equipment in case the gate comes in contact with an obstruction.



Single and Bi-Parting Sliding Operators

Number 1295
Operator Unit



Shown with weather resistant cover removed
(see cover photo)

NUMBER 1295 OPERATING SPEED

Single Sliding		— Bi-Parting	
Width		Per Minute:	
Up to 40'0" width	1219cm	90' [18" per sec.]	2743cm/min

RECOMMENDED CAPACITIES NUMBER 1295

Bi-Parting Gates with One Operator

Operator H.P.	Max. Area of Gates	Max.	Shipping Weight
1/2	200 sq. ft. 18.58 sq. M	900 lbs. 408kg	300 lbs. 136kg
1	380 sq. ft. 35.30 sq. M	1800 lbs. 816kg	345 lbs. 156kg

RECOMMENDED CAPACITIES NUMBER 1295

Single Slide Gates, Bi-Parting Gates with One Operator

Operator H.P.	Max. Area of Gates	Max.	Shipping Weight
1/2	200 sq. ft. 18.58 sq. M	900 lbs. 408kg	300 lbs. 136kg
1	380 sq. ft. 35.30 sq. M	1800 lbs. 816kg	345 lbs. 156kg

Standard Voltage: 115V, 230V, single phase. 208V, 230V, 460V 3 phase. 3 Phase current recommended

NUMBER 1295

Number 1295
For hard use, heavy traffic for openings
up to 40 ft. wide [Over 40'0" width—
see page 5, Number 1285]

The No. 1295 electric gate operator is **ruggedly** constructed and designed especially to take year-after-year of hard use and heavy traffic in all types of weather.

No. 1295 is for use with overhead track or cantilever sliding gates...and is easily adapted to any make of gate. The unit comes completely wired ready to connect to both power source and controls. In the event of a power failure, the operator is equipped with an emergency release that can be operated without removing the cover. A padlock arrangement is also provided for locking the release in either the engaged or disengaged position.

The operator is mounted on a heavy steel base supported by an upright I-Beam. Mounting posts are optional items (available in embedded or pad mounted type).

For ease of maintenance, the cover (at ground level) may be easily removed leaving the operator fully exposed.

The gate should have a 2'3" (69cm) minimum lap at the back jamb; however, an extension bracket can be supplied at additional cost where no lap is available.

OPERATION

The single horizontal heavy duty roller chain is mounted to each end of the gate, acting as a gear rack to the sprocket of the operator. The operator is mounted to an upright I-beam, which is an optional extra cost item. The sprocket is connected to the heavy duty driving unit with a safety friction disc clutch.

The driving unit, consisting of an instantly reversible motor with built-in speed reducer, magnetic brake, drive sprocket, safety friction disc clutch, limit switch, emergency release, and reversing starter with overload and underload protection, is mounted on a heavy steel base protected by a weather resistant cover with padlock attachment.

ARCHITECTURAL SPECIFICATIONS

For Number 1295
Horizontal Sliding Gate Operator

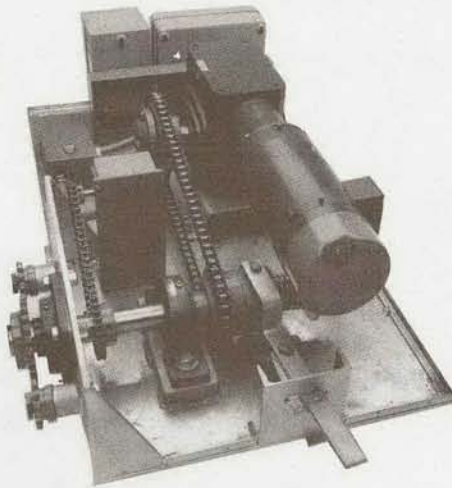
Sliding electric gate operator shall be built into a compact unit mounted on a heavy hot dipped galvanized steel base. The unit shall consist of a right angle gearhead instantly reversing motor, *NEMA rated starter, magnetic brake, safety disc clutch and a chain driven gear type automatic limit switch. The gearhead motor shall be assembled as one stage of reduction. The gear motor housing shall be made of all cast iron construction. Worms shall be rolled from solid blanks of high alloy 8620 steel. Worms shall receive polishing treatment to maximize efficiency. Steel contact area shall be super finished. Output shafts of "stressproof" 1045 alloy, minimum 100,000 psi yield, shall be mounted on heavy duty tapered roller bearings. Double lipped oil seals on the output shafts shall operate on super finished shaft areas to assure oil retention and contaminant exclusion. A magnetic drum type brake with its easily adjustable feature shall be built on the jack shaft for position gate control.

The automatic limit switch which stops the gates in the fully open or closed position shall be a precision built gear type which shall be driven with a chain drive from the jackshaft of the operator. The limit switch chain drive shall be located so that any safety friction disc clutch slippage or the manual operation of the gate shall not cause mistiming of the operator mechanism.

The gate shall be moved by high quality self-adjusting No. 52 (minimum 6100 lbs. [2767kg] ultimate strength) roller chain and heavy brackets to the gate. A simple releasing feature shall be supplied in case of power failure. The chain shall be driven from a dependable safety friction disc clutch on the gearhead motor's countershaft. This safety clutch shall protect equipment in case the gate comes in contact with an obstruction.



Number 1285 Operator Unit



NUMBER 1285 OPERATING SPEED

Single Sliding		Per Minute	
Gate Width			
Up to 300'	9144cm	90' [18" per sec.]	2743cm/min

RECOMMENDED CAPACITIES NUMBER 1285 OPERATOR

Operator H.P. of Gate	Max. Width of Gate	Max. Weight of Gate	Approx Ship. Weight
1 1/2	110 ft. 3353cm	2850 lbs. 1293kg	475 lbs. 215kg
2	150 ft. 4572cm	3800 lbs. 1724kg	585 lbs. 265kg
3	200 ft. 6096cm	5700 lbs. 2585kg	780 lbs. 354kg
5	300 ft. 9144cm	9500 lbs. 4309kg	945 lbs. 429kg

Standard Voltage: 208V, 230V, 460V. 3 phase only

Shown with weather resistant cover removed (see cover photo)

NUMBER 1285

Number 1285
For openings up to 300 feet wide
[Under 40'0" – see page 4 Number 1295]

The No. 1285 electric gate operator is designed to efficiently operate gates ranging from 40 up to 300 feet (1219cm to 9144cm) wide. The operator is mounted on a heavy steel base supported by two upright I-beams. (I-beams of embedded type are optional items).

The unit comes with motor, brake and limit switch pre-wired into a terminal box located on the base plate. In the event of a power failure

the operator is equipped with an emergency release that can be operated without removing the cover. A padlock arrangement is provided for locking the release in either the engaged or disengaged position.

For ease of maintenance, the cover (at ground level) may be easily removed leaving the operator fully exposed.

OPERATION

The sliding gate is operated by a single heavy duty roller chain which runs through an idler sprocket on the operator unit. The roller chain is fastened to each end of the horizontal gate.

When the control station actuates the driving unit, the teeth of the driving sprocket engage the roller chain, causing the chain to move, thus operating the gate in the direction desired.

The driving unit consists of an instantly reversible motor with a built-in speed reducer, built-in magnetic brake, drive sprocket, safety friction clutch, limit switches, emergency release and weather resistant cover.

A reversing starter (NEMA #4-water tight) with overload and underload protection is provided.

ARCHITECTURAL SPECIFICATIONS

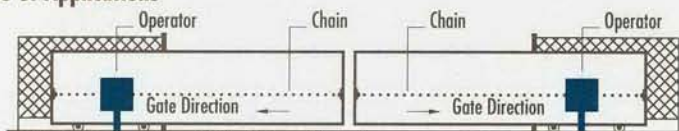
For Number 1285
Horizontal Sliding Gate Operator

Each sliding type electric operator shall be built into a compact unit mounted on a heavy hot dipped galvanized steel base. The unit shall consist of a right angle gearhead, "NEMA rated starter, magnetic brake, heavy duty safety clutch, reversing starter with silver to silver contacts, emergency release, galvanized weather hood and limit switch to suit job conditions. The roller chain shall be minimum number 60 with an ultimate strength of 8500.

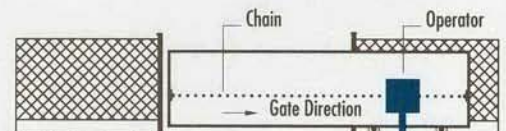
The gearhead motor and magnetic unibrake shall be assemble as one unit with one stage of reduction. The geared motor shall be of all cast iron construction. Input worm shaft shall be supported on tapered roller bearings, preloaded, to accommodate frequent, rapid reversals and high motor starting torques. The input worm shaft shall be made

of 8620 alloy steel, ground and polished surface with fine grain hardness carburized to Rockwell C 60, minimum. Gears are of 48 bronze high strength, low friction alloy. Motor is coupled to input worm shaft with multi-jaw coupling with resilient member for additional shock absorption when starting or reversing. Double lip oil seals on the output shaft shall operate on super finished shaft areas to assure oil retention and contaminant exclusion. Output shafts of "stress proof" 1045 alloy, minimum 100,000 psi yield shall be mounted on heavy duty tapered roller bearings. The magnetic disc type unibrake with its easily adjustable feature shall be assembled to the motor to make a compact and efficient unit.

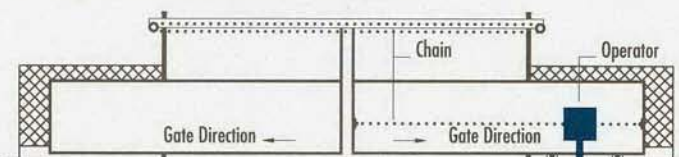
Four Types of Applications



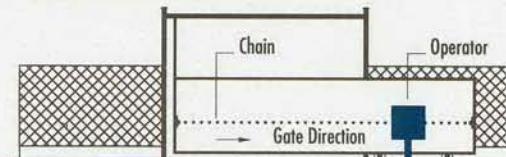
Bi-Parting Cantilever Gates / Pair of Gates with Two Operators



Single Slide Cantilever Gate



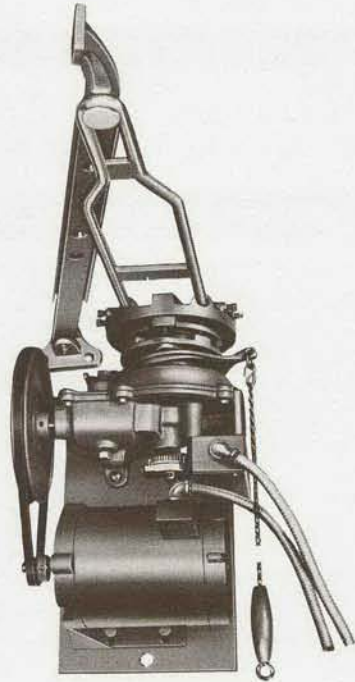
Bi-Parting Top Hung Gate / Pair of Gates with one Operator



Single Slide Gate



Number 1510
Operator Unit
Heavy Duty
Gear Unit



Number 1510X
1 H.P.
Operator Unit
Extra Heavy Duty
Gear Unit



Both models shown with weather resistant covers removed

NUMBER 1510

Number 1510
Featuring the Harmonic Action Principle

The No. 1510 electric gate operator was designed to accept the heavy demands put upon a swing gate operator for either an indoor or outdoor installation. This operator is extremely versatile and is easy and simple to install...it can also be mounted in several ways to meet existing conditions. Normally, it is mounted to an upright channel.

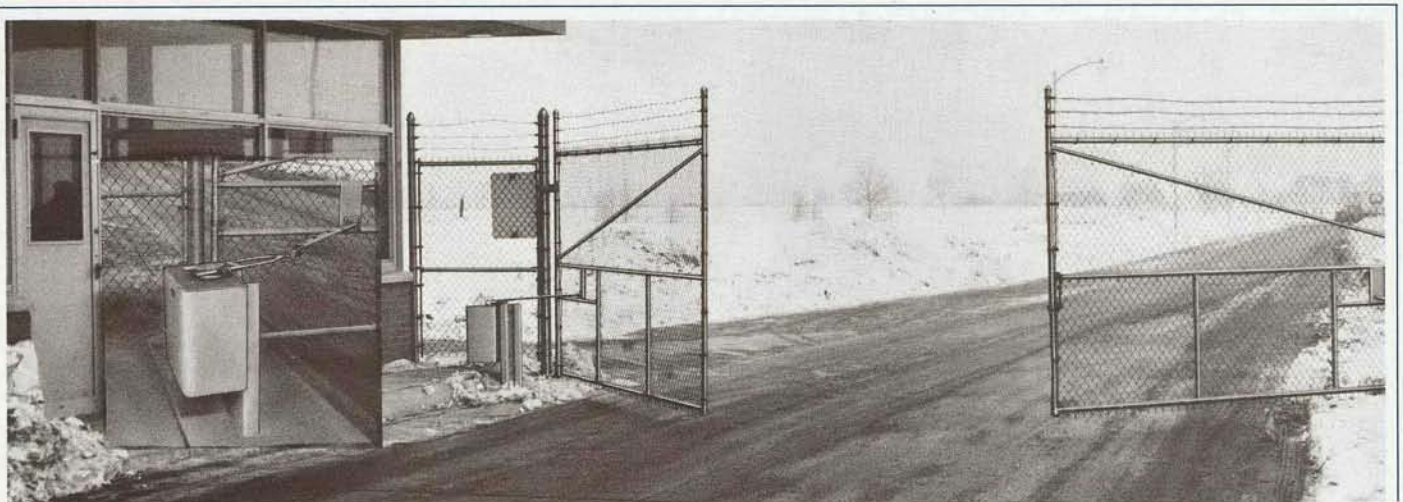
(Channels are optional items available in embedded or pad mounted types.) In the event of a power failure the operator is equipped with an emergency release. The 1510 features an extremely smooth operation which is achieved by the harmonic action principle. When ordering, specify one operator per each gate.

OPERATION

A No. 1510 electric operator opens and closes the gate with a simple crank arm and connecting arm movement eliminating the complicated system of levers found in many other gate operating mechanisms. Due to the harmonic action principle of the arms the movement of the gate is started in a gradual manner, the speed becoming quite rapid in the middle of the cycle of operation and then slowing down to a

gradual stop. No jerk or slam of gate, means long life for gate and operator. The crank arm is attached directly to the safety clutch of the power unit which adds to its protective function.

A reversing starter with overload and underload protection is provided with each operator.





SPEED* [seconds required to open]

Maximum Gate Width – 12'0"	Gates Over 12'0"
7 to 8	13 to 14

* Extra Heavy Gear Unit has constant speed of 13 to 14 seconds

RECOMMENDED CAPACITIES NUMBER 1510 OPERATORS

Operator [in H.P.]	Max. Width of Gate [in ft.]		Max. Weight of Gate [in lbs.]		Approx. Ship. Weight of Operator [in lbs.]	
	single	pairs	single	pairs	single	pairs
1/2	16 ft. 488cm	32 ft. 976cm	600 lbs. 272kg	1200 lbs. 544kg	275 lbs. 125kg	545 lbs. 247kg
* 1	26 ft. 792cm	52 ft. 1584cm	1100 lbs. 499kg	2200 lbs. 988kg	310 lbs. 141kg	615 lbs. 279kg
• 1	30 ft. 914cm	60 ft. 1828cm	1300 lbs. 590kg	2600 lbs. 1179kg	550 lbs. 249kg	1090 lbs. 494kg

* Heavy Duty Gear Unit

• Extra Heavy Gear Unit

Standard Voltage: 115V, 230V, single phase. 208V, 230V, 460V 3 phase. 3 phase current is recommended for best all around performance.

ARCHITECTURAL SPECIFICATIONS

For Number 1510
Swinging Gate Operator
Heavy Duty

Each swing type electric operator shall be built into a compact unit consisting of an instantly reversing motor, *NEMA rated starter, a precision-made speed reduction mechanism with "V" belt and pulleys, a safety friction disc clutch, an emergency release, fully automatic limit switches and a heavy duty crank and connecting arm assembly and a weather resistant cover.

The motor shall have ample reserve power to take occasional overloads.

All gears in the speed reduction mechanism shall be cut gears. Shafts and gears shall be mounted with "long-life" bearings enclosed in an oil-tight housing and operate at all times in grease. The automatic

limit switches which stop the gate in the desired open or closed position shall be built on this reduction unit.

The operating levers shall consist of a heavy duty crank and connecting arms. This operator unit shall produce the harmonic motion principle of operation that will start in a gradual manner with high torque increasing to a rapid speed in the middle of the cycle of travel, then gradually slowing down to the stop position. When the operator is in closed position, the arms shall be in a locked position. The crank arm shall be in a locked position. The crank arm shall be driven by a safety friction disc clutch which shall protect equipment in case the gate comes in contact with an obstruction. A disconnecting device shall be provided to allow manual operation.

ARCHITECTURAL SPECIFICATIONS

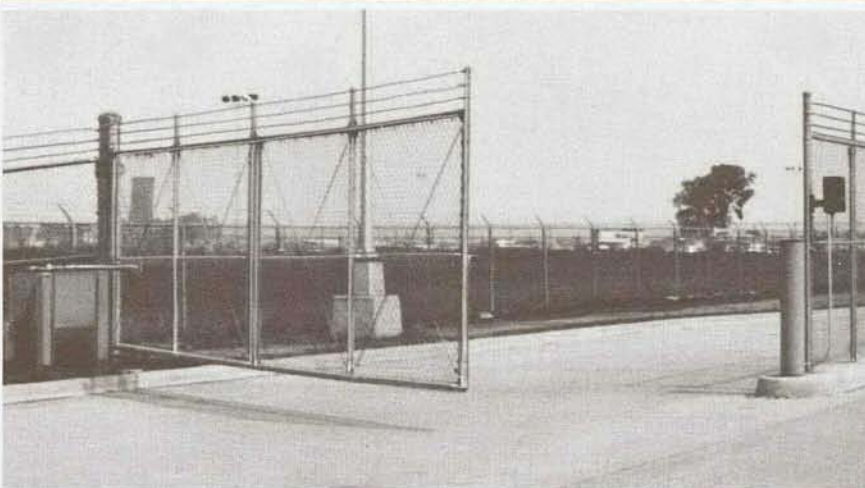
For Number 1510X
Swinging Gate Operator
1 H.P. Extra Heavy Gear Unit

Each one horse-power swing type electric operator shall be built into one compact unit mounted on a heavy steel base. The unit shall consist of a low speed high torque right angle combination gearhead reversing motor, *NEMA rated starter, a safety disc clutch, an emergency release, fully automatic limit switches and a heavy duty crank and connecting arm assembly.

The gearhead motor shall be built as one unit with two stages of reduction. The first stage shall consist of a high alloy, 8620 steel, hardened and polished worm, mating with a gear cut from CA673 alloy Mueller bronze forgings. The second stage shall consist of a high alloy 8620 steel, hardened and polished worm and a bimetallic construction worm gear. The anti-friction bearings shall be the highest quality ball bearings on the motor shaft and tapered roller bearings on the intermediate and output shafts. All gears and bearings shall operate in an oil bath. Leakage of oil shall be prevented by double lip oil seals on

the output shaft operating on super finished shaft surfaces. Single lip seals shall be supplied around motor shaft to minimize friction loss.

The automatic limit switches which stop the gates in the fully open or closed position shall be securely attached to the gearhead motor. The operating levers shall consist of a heavy duty crank arm and connecting arm which shall produce the harmonic action principle of operation that will start in a gradual manner with high torque increasing to a rapid speed in the middle of the cycle of travel, then gradually slowing down to the stop position. When the operator is in closed position, the arms shall be in a locked position. The crank arm shall be driven by a safety friction disc clutch which shall protect equipment in case the gate comes in contact with an obstruction.



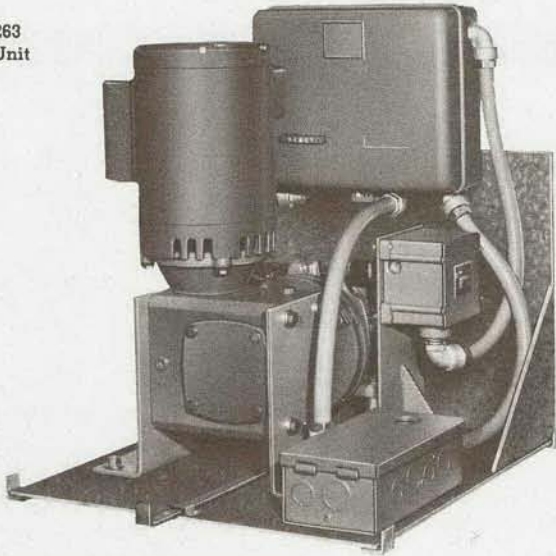
Operator No. 1510



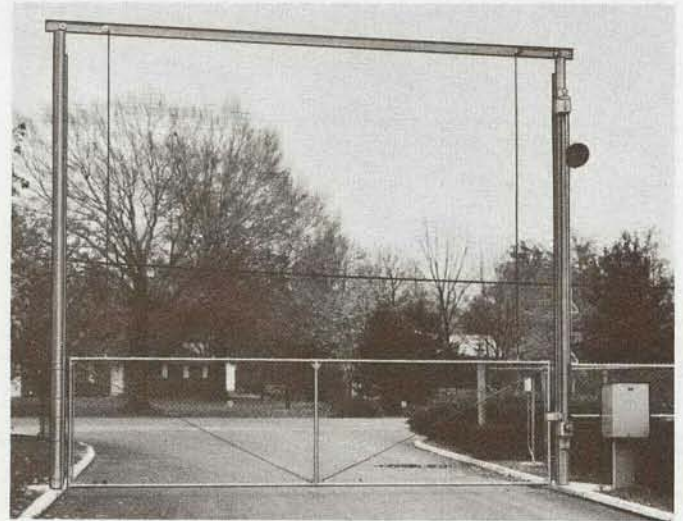
Operator No. 1510



Number 1263 Operator Unit



Shown with weather resistant cover removed



Operator No. 1263

NUMBER 1263

Number 1263 For Vertical Lift Single or Sectional Gates

This operator was specifically designed to raise and lower both single and multi-speed sectional gates. It features heavy-duty construction offering 'round the clock operation in all types of weather. The unit comes completely wired ready to connect to both power source and controls. In the event of a power failure the operator is equipped with an emergency release that can be operated without removing the cover. The unit also has a hand crank mechanism to raise and lower the gate during power shut-off. A padlock arrangement is also provided for locking the release in either the engaged or disengaged position.

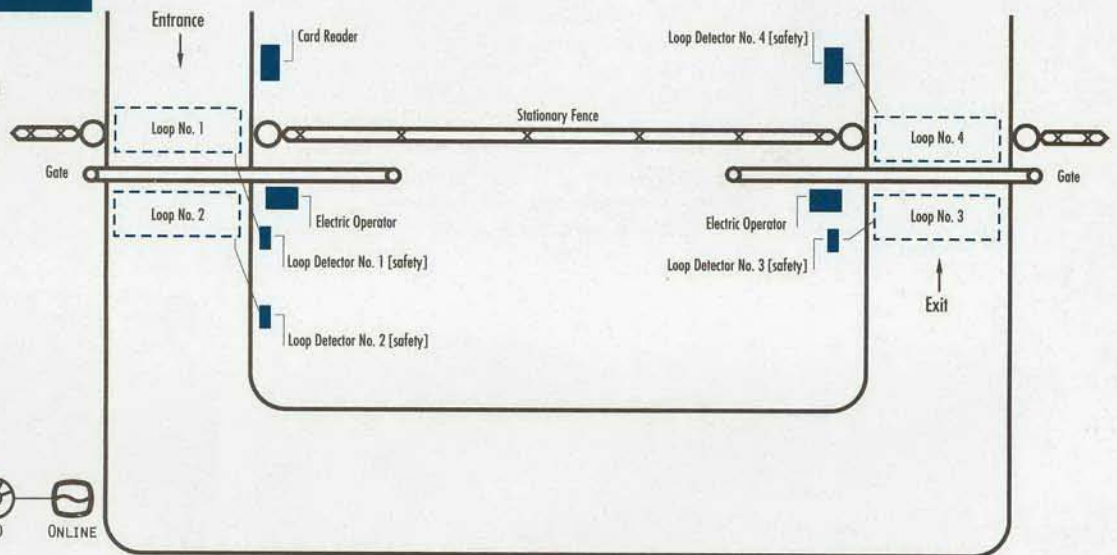
The operator is mounted on a heavy steel base supported by an upright I-beam. Mounting posts are optional items (available in embedded or pad mounted type).

For ease of maintenance, the cover (at ground level) may be easily removed leaving the operator unit fully exposed.

AUTOMATED SYSTEM

Ask for Crown Operator Control Catalogue

No system is too complex for Crown Engineering "know how" ... Typical of the Crown capability is this totally automated system



SEE US IN



DISTRIBUTOR

Empty box for distributor information



213 Michelle Court South San Francisco, CA 90480 Phone [650] 952-5150 Fax [650] 873-1495 http://www.crown-industrial.com email: autodor@crown-industrial.com