

## Strip Heaters

### 375 Finned Strip

Like its 375 strip counterpart, the 375 finned strip heater is constructed of highly-compacted MgO-based insulation, which conducts heat efficiently from the nickel-chrome element wire to the sheath. Two inch wide (51 mm) aluminized steel fins are attached in a way that maximizes surface contact so that heat is displaced and transferred into the air faster.

#### Performance Capabilities

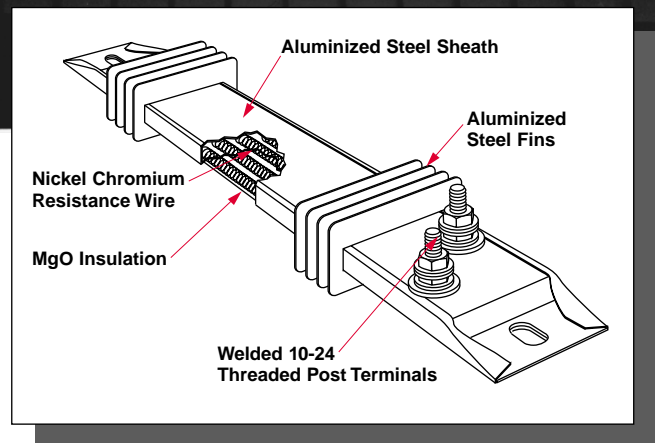
- Aluminized steel sheath temperatures to 1100°F (595°C)
- UL® approved to 240V~(ac) (File No. E52951)
- CSA approved to 600V~(ac) (File No. LR7392)

#### Features and Benefits

- **Nickel-chrome element wire** is centered in the heater to uniformly heat the strip.
- **Aluminized steel sheath** operates at higher temperatures and resists corrosion better than iron-sheathed heaters.
- **Optional 430 stainless steel sheath** is available for more corrosive environments.
- **Welded post terminals** produce strong, trouble-free connections.
- **Rigid 3/8-inch (9.5 mm) thick design** enables the 375 finned strip heater to fit into many existing applications.
- **Available lengths** from 5½ inches (140 mm) to 48 inches (1220 mm).

#### Applications

- Shrink tunnels
- Duct heaters
- Space heaters
- Drying ovens
- Incubators
- Air heating
- Load bank resistors
- Heat curing
- Ink drying
- Food warmers
- Moisture protection
- Process welding
- Dehumidifiers
- Stress relieving ovens



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### Applications and Technical Data

#### Calculating Watt Density

Use the graph and formulas to make certain that the maximum allowable watt density for the heater will not be exceeded in the application.

Open air watt density is calculated for total heated surface area.

#### Formulas:

$$\text{Watt Density} = \frac{\text{Wattage}}{\text{Heated Area}}$$

Heated Area

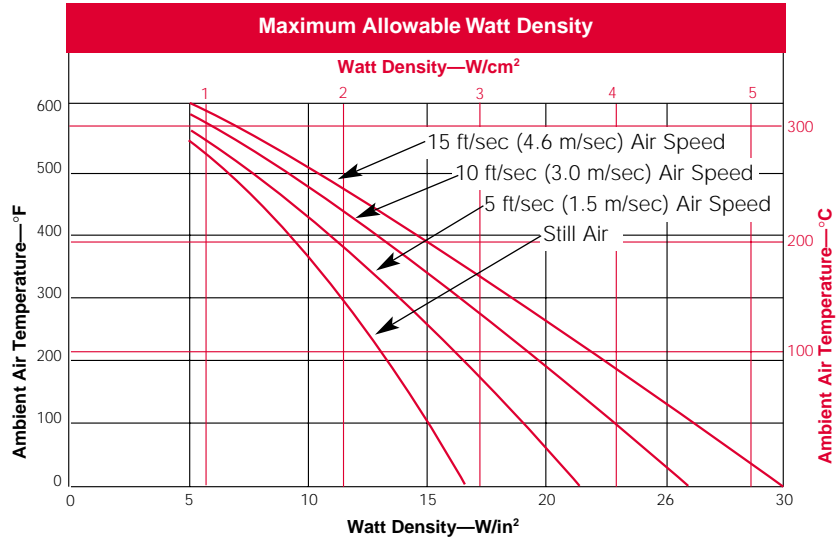
$$\begin{aligned} \text{(Offset Terminals)} &= [\text{Overall Length (A)} - 4.00 \text{ in.}] \times 3.75 \text{ in.} \\ &= [\text{Overall Length (A)} - 101.6 \text{ mm}] \times 95.25 \text{ mm} \end{aligned}$$

Heated Area

$$\begin{aligned} \text{(Parallel Terminals)} &= [\text{Overall Length (A)} - 3.12 \text{ in.}] \times 3.75 \text{ in.} \\ &= [\text{Overall Length (A)} - 79.25 \text{ mm}] \times 95.25 \text{ mm} \end{aligned}$$

Heated Area

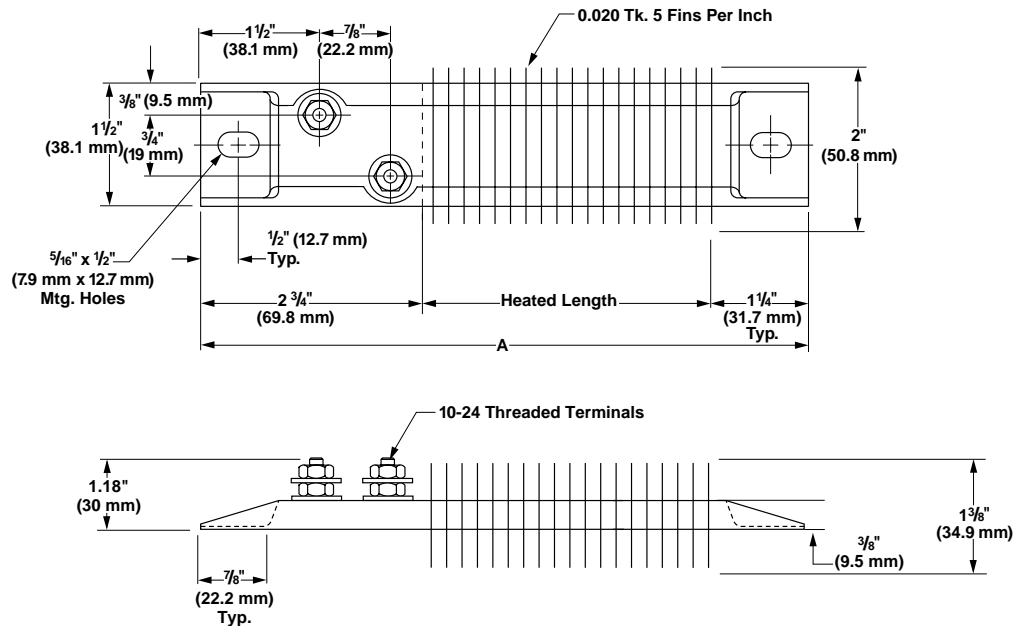
$$\begin{aligned} \text{(One-on-One Terminals)} &= [\text{Overall Length (A)} - 4.25 \text{ in.}] \times 3.75 \text{ in.} \\ &= [\text{Overall Length (A)} - 107.95 \text{ mm}] \times 95.25 \text{ mm} \end{aligned}$$



### Termination Options

#### Offset Terminals

Two 10-24 threaded post terminals are offset from each other on the same end.



# Strip Heaters

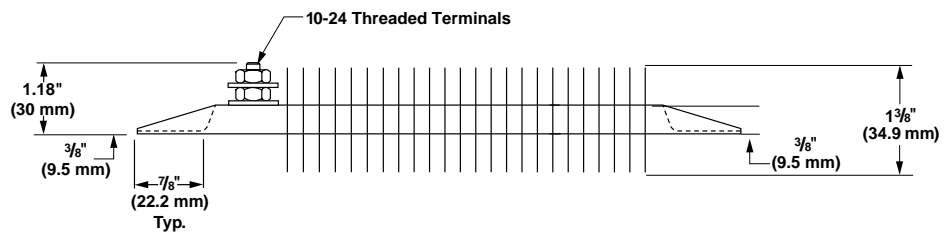
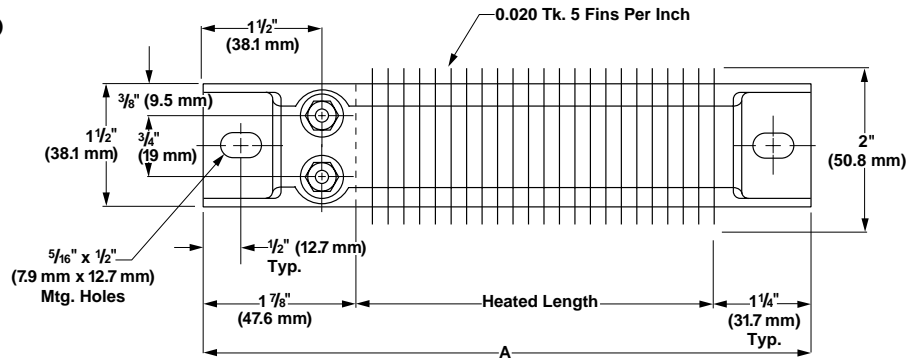
## 375 Finned Strip

### Termination Options

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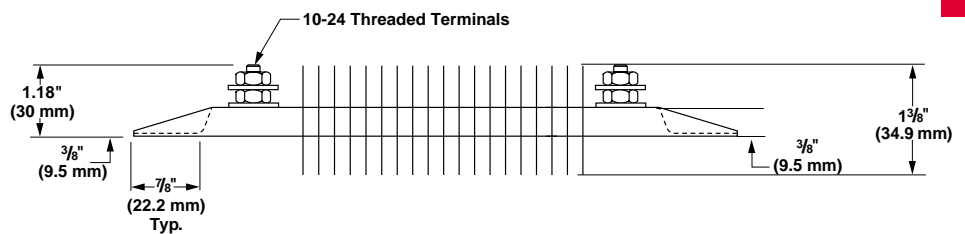
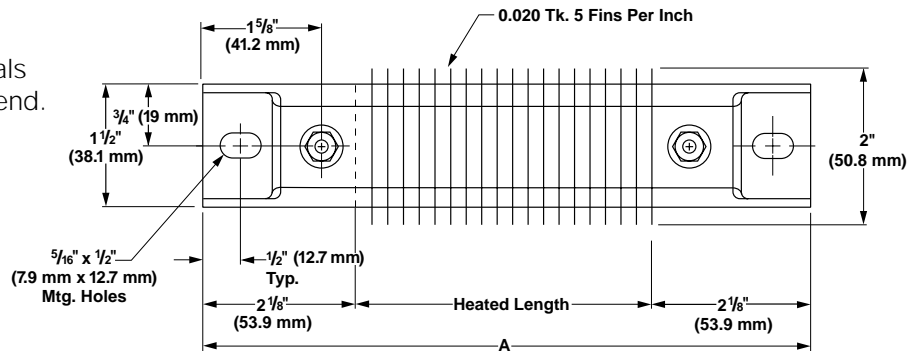
#### Parallel Terminals

Two 10-24 threaded post terminals are used; both terminals on one end.



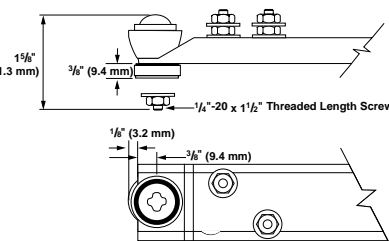
#### One-on-One Terminals

Two 10-24 threaded post terminals are used; one terminal on each end.



#### Secondary Insulation Bushings

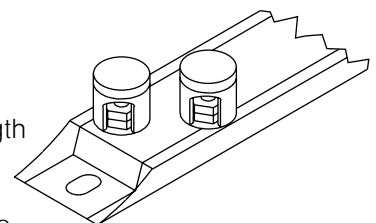
Insulators are suitable for use when air heating and/or voltage to ground is a concern. Secondary insulation bushing kit part number **Z5230** contains one set of bushings for one heater. To accommodate the bushings,  $1\frac{17}{32} \times 1\frac{11}{16}$  inch



diameter mounting holes **must** be specified when ordering.

#### Ceramic Terminal Covers

A convenient and economical way to insulate post terminals. Sized for standard length posts. 10-24 screw thread size. These are supplied as an accessory item and shipped separately. Specify **Z-4918** and quantity.



# Strip Heaters

F.O.B.: St. Louis, Missouri

## 375 Finned Strip

### How to Order

To order stock 375 finned strip heater, specify:

- 375 finned strip
- Quantity
- Watlow code number
- Voltage
- Wattage
- Removal of mounting tabs, if desired

If stock units do not meet application needs, Watlow can manufacture 375 finned strip heaters to special requirements. For **made-to-order** units, please specify, in addition to above information:

- Width
- Length, including mounting tabs
- Terminal type (offset, parallel or one-on-one)

### Availability

**Assembly Stock:** Shipment within three working days

**Made-to-Order:** Please consult your Watlow sales engineer or authorized distributor.

Width inches (mm)	Termination	Length inches (mm)	Volts	Power (Watts)	W/in <sup>2</sup> (W/cm <sup>2</sup> )	Approx. Net Wt. lbs (kg)	Availability	Code No.
1½ (38.1)	Parallel	5½ (139.7)	120	125	14 (2.1)	0.5 (0.23)	Assy. Stock	<b>SGA1J5JY2</b>
	Parallel	5½ (139.7)	120	250	28 (4.3)	0.5 (0.23)	Assy. Stock	<b>SGA1J5JY3</b>
	Parallel	6 (152.4)	120	150	14 (2.1)	0.5 (0.23)	Assy. Stock	<b>SGA1J6AY1</b>
	Parallel	6 (152.4)	240	150	14 (2.1)	0.5 (0.23)	Assy. Stock	<b>SGA1J6AY2</b>
	Parallel	6 (152.4)	120	300	28 (4.3)	0.5 (0.23)	Assy. Stock	<b>SGA1J6AY3</b>
	Parallel	6 (152.4)	240	300	28 (4.3)	0.5 (0.23)	Assy. Stock	<b>SGA1J6AY4</b>
	Offset	7½ (190.5)	120	150	12 (1.8)	0.7 (0.32)	Assy. Stock	<b>SGA1J7JW1</b>
	Offset	7½ (190.5)	240	150	12 (1.8)	0.7 (0.32)	Assy. Stock	<b>SGA1J7JW2</b>
	Offset	7½ (190.5)	240	200	15 (2.3)	0.7 (0.32)	Assy. Stock	<b>SGA1J7JW3</b>
	Offset	8 (203.2)	120	150	10 (1.5)	0.7 (0.32)	Assy. Stock	<b>SGA1J8AW2</b>
	Offset	8 (203.2)	240	150	10 (1.5)	0.7 (0.32)	Assy. Stock	<b>SGA1J8AW3</b>
	Offset	8 (203.2)	120	175	12 (1.8)	0.7 (0.32)	Assy. Stock	<b>SGA1J8AW4</b>
	Offset	8 (203.2)	240	175	12 (1.8)	0.7 (0.32)	Assy. Stock	<b>SGA1J8AW5</b>
	Offset	8 (203.2)	120	250	17 (2.6)	0.7 (0.32)	Assy. Stock	<b>SGA1J8AW6</b>
	Offset	8 (203.2)	240	250	17 (2.6)	0.7 (0.32)	Assy. Stock	<b>SGA1J8AW7</b>
	Offset	8 (203.2)	120	400	27 (4.2)	0.7 (0.32)	Assy. Stock	<b>SGA1J8AW8</b>
	Offset	8 (203.2)	240	400	27 (4.2)	0.7 (0.32)	Assy. Stock	<b>SGA1J8AW9</b>
	Offset	8 (203.2)	120	500	33 (5.1)	0.7 (0.32)	Assy. Stock	<b>SGA1J8AW10</b>
	Offset	8 (203.2)	240	500	33 (5.1)	0.7 (0.32)	Assy. Stock	<b>SGA1J8AW11</b>
	Offset	10½ (266.7)	120	250	10 (1.5)	0.9 (0.40)	Assy. Stock	<b>SGA1J10JW1</b>
Offset	10½ (266.7)	240	250	10 (1.5)	0.9 (0.40)	Assy. Stock	<b>SGA1J10JW2</b>	
Offset	10½ (266.7)	120	350	14 (2.1)	0.9 (0.40)	Assy. Stock	<b>SGA1J10JW3</b>	
Offset	10½ (266.7)	240	350	14 (2.1)	0.9 (0.40)	Assy. Stock	<b>SGA1J10JW4</b>	
Offset	10½ (266.7)	120	400	16 (2.5)	0.9 (0.40)	Assy. Stock	<b>SGA1J10JW5</b>	
Offset	10½ (266.7)	240	400	16 (2.5)	0.9 (0.40)	Assy. Stock	<b>SGA1J10JW6</b>	

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**Note:** 375 finned strip heaters with one-on-one terminations are available only as a manufactured item. Please contact a Watlow sales engineer for additional information.

**Note:** 5/16 x 1/2 inch (7.9 x 12.7 mm) mounting slots are supplied on all 375 finned strip heaters. Tabs can be removed upon request.

# Strip Heaters

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Width inches (mm)	Termination	Length inches (mm)	Volts	Power (Watts)	W/in <sup>2</sup> (W/cm <sup>2</sup> )	Approx. Net Wt. lbs (kg)	Availability	Code No.
1½ (38.1)	Offset	12 (304.8)	120	250	8 (1.2)	1.0 (0.45)	Assy. Stock	<b>SGA1J12AW1</b>
	Offset	12 (304.8)	240	250	8 (1.2)	1.0 (0.45)	Assy. Stock	<b>SGA1J12AW2</b>
	Offset	12 (304.8)	120	350	12 (1.8)	1.0 (0.45)	Assy. Stock	<b>SGA1J12AW3</b>
	Offset	12 (304.8)	240	350	12 (1.8)	1.0 (0.45)	Assy. Stock	<b>SGA1J12AW4</b>
	Offset	12 (304.8)	120	500	17 (2.6)	1.0 (0.45)	Assy. Stock	<b>SGA1J12AW5</b>
	Offset	12 (304.8)	240	500	17 (2.6)	1.0 (0.45)	Assy. Stock	<b>SGA1J12AW6</b>
	Offset	14 (355.6)	120	300	8 (1.2)	1.2 (0.54)	Assy. Stock	<b>SGA1J14AW1</b>
	Offset	14 (355.6)	240	300	8 (1.2)	1.2 (0.54)	Assy. Stock	<b>SGA1J14AW2</b>
	Offset	14 (355.6)	120	500	13 (2.0)	1.2 (0.54)	Assy. Stock	<b>SGA1J14AW3</b>
	Offset	14 (355.6)	240	500	13 (2.0)	1.2 (0.54)	Assy. Stock	<b>SGA1J14AW4</b>
	Offset	15¼ (387.4)	120	325	8 (1.2)	1.4 (0.64)	Assy. Stock	<b>SGA1J15EW1</b>
	Offset	15¼ (387.4)	240	325	8 (1.2)	1.4 (0.64)	Assy. Stock	<b>SGA1J15EW2</b>
	Offset	15¼ (387.4)	240	500	12 (1.8)	1.4 (0.64)	Assy. Stock	<b>SGA1J15EW3</b>
	Offset	17⅞ (454.0)	120	350	8 (1.2)	1.6 (0.73)	Assy. Stock	<b>SGA1J17RW1</b>
	Offset	17⅞ (454.0)	240	350	8 (1.2)	1.6 (0.73)	Assy. Stock	<b>SGA1J17RW2</b>
	Offset	17⅞ (454.0)	120	375	9 (1.4)	1.6 (0.73)	Assy. Stock	<b>SGA1J17RW3</b>
	Offset	17⅞ (454.0)	240	375	9 (1.4)	1.6 (0.73)	Assy. Stock	<b>SGA1J17RW4</b>
	Offset	17⅞ (454.0)	120	500	12 (1.8)	1.6 (0.73)	Assy. Stock	<b>SGA1J17RW5</b>
	Offset	17⅞ (454.0)	240	500	12 (1.8)	1.6 (0.73)	Assy. Stock	<b>SGA1J17RW6</b>
	Offset	17⅞ (454.0)	120	750	18 (2.8)	1.6 (0.73)	Assy. Stock	<b>SGA1J17RW7</b>
	Offset	17⅞ (454.0)	240	750	18 (2.8)	1.6 (0.73)	Assy. Stock	<b>SGA1J17RW8</b>
	Offset	17⅞ (454.0)	120	1000	24 (3.7)	1.6 (0.73)	Assy. Stock	<b>SGA1J17RW9</b>
	Offset	17⅞ (454.0)	240	1000	24 (3.7)	1.6 (0.73)	Assy. Stock	<b>SGA1J17RW10</b>
	Offset	19½ (495.3)	240	350	6 (.9)	1.7 (0.77)	Assy. Stock	<b>SGA1J19JW2</b>
	Offset	19½ (495.3)	120	500	9 (1.4)	1.7 (0.77)	Assy. Stock	<b>SGA1J19JW3</b>
	Offset	19½ (495.3)	240	500	9 (1.4)	1.7 (0.77)	Assy. Stock	<b>SGA1J19JW4</b>
	Offset	19½ (495.3)	240	750	13 (2.0)	1.7 (0.77)	Assy. Stock	<b>SGA1J19JW5</b>
	Offset	19½ (495.3)	240	1000	17 (2.6)	1.7 (0.77)	Assy. Stock	<b>SGA1J19JW6</b>
	Offset	21 (533.4)	120	500	8 (1.2)	1.9 (0.86)	Assy. Stock	<b>SGA1J21AW3</b>
	Offset	21 (533.4)	240	500	8 (1.2)	1.9 (0.86)	Assy. Stock	<b>SGA1J21AW4</b>
	Offset	21 (533.4)	120	750	12 (1.8)	1.9 (0.86)	Assy. Stock	<b>SGA1J21AW5</b>
	Offset	21 (533.4)	240	750	12 (1.8)	1.9 (0.86)	Assy. Stock	<b>SGA1J21AW6</b>

Strip Heaters

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**Note:** 375 finned strip heaters with one-on-one terminations are available only as a manufactured item. Please contact a Watlow sales engineer for additional information.

**Note:** ⅝ x ½ inch (7.9 x 12.7 mm) mounting slots are supplied on all 375 finned strip heaters. Tabs can be removed upon request.

# Strip Heaters

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Width inches (mm)	Termination	Length inches (mm)	Volts	Power (Watts)	W/in <sup>2</sup> (W/cm <sup>2</sup> )	Approx. Net Wt. lbs (kg)	Availability	Code No.
1½ (38.1)	Offset	23¾ (603.3)	240	500	7 (1.0)	2.1 (0.95)	Assy. Stock	<b>SGA1J23NW3</b>
	Offset	23¾ (603.3)	240	750	10 (1.5)	2.1 (0.95)	Assy. Stock	<b>SGA1J23NW5</b>
	Offset	23¾ (603.3)	120	1000	14 (2.1)	2.1 (0.95)	Assy. Stock	<b>SGA1J23NW6</b>
	Offset	23¾ (603.3)	240	1000	14 (2.1)	2.1 (0.95)	Assy. Stock	<b>SGA1J23NW7</b>
	Offset	23¾ (603.3)	240	1500	20 (3.1)	2.1 (0.95)	Assy. Stock	<b>SGA1J23NW8</b>
	Offset	25½ (647.7)	120	500	6 (.9)	2.3 (1.0)	Assy. Stock	<b>SGA1J25JW2</b>
	Offset	25½ (647.7)	240	500	6 (.9)	2.3 (1.0)	Assy. Stock	<b>SGA1J25JW3</b>
	Offset	25½ (647.7)	120	750	9 (1.4)	2.3 (1.0)	Assy. Stock	<b>SGA1J25JW4</b>
	Offset	25½ (647.7)	240	750	9 (1.4)	2.3 (1.0)	Assy. Stock	<b>SGA1J25JW5</b>
	Offset	25½ (647.7)	240	1000	12 (1.8)	2.3 (1.0)	Assy. Stock	<b>SGA1J25JW6</b>
	Offset	26¾ (679.5)	240	700	8 (1.2)	2.4 (1.1)	Assy. Stock	<b>SGA1J26NW2</b>
	Offset	26¾ (679.5)	240	1000	12 (1.8)	2.4 (1.1)	Assy. Stock	<b>SGA1J26NW3</b>
	Offset	30½ (774.7)	120	750	8 (1.2)	2.7 (1.2)	Assy. Stock	<b>SGA1J30JW1</b>
	Offset	30½ (774.7)	240	750	8 (1.2)	2.7 (1.2)	Assy. Stock	<b>SGA1J30JW2</b>
	Offset	33½ (850.9)	240	750	7 (1.0)	3.0 (1.4)	Assy. Stock	<b>SGA1J33JW1</b>
	Offset	35⅝ (911.2)	120	1000	8 (1.2)	3.2 (1.5)	Assy. Stock	<b>SGA1J35RW1</b>
	Offset	35⅝ (911.2)	240	1000	8 (1.2)	3.2 (1.5)	Assy. Stock	<b>SGA1J35RW2</b>
	Offset	35⅝ (911.2)	240	1500	13 (2.0)	3.2 (1.5)	Assy. Stock	<b>SGA1J35RW3</b>
	Offset	38½ (977.9)	120	1000	8 (1.2)	3.4 (1.5)	Assy. Stock	<b>SGA1J38JW2</b>
	Offset	38½ (977.9)	240	1500	11 (1.7)	3.4 (1.5)	Assy. Stock	<b>SGA1J38JW3</b>
Offset	42½ (1079.5)	240	1500	10 (1.5)	3.8 (1.7)	Assy. Stock	<b>SGA1J42JW1</b>	
Offset	47⅞ (1216.0)	240	2250	16 (2.4)	4.3 (2.0)	Assy. Stock	<b>SGA1J47RW2</b>	

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