



**B15F**CoalBrass™ 15'
Full Circle Nozzle



**B12H**CoalBrass™ 12'
Half Circle Nozzle



**B10T**CoalBrass™ 10'
One-third Circle Nozzle

#### **Features and Benefits**

- Available in 5′, 8′, 10′, 12′, or 15′ radius.
- Uniform spray patterns throughout the full radius with CU slot.
- Virtually eliminates risk of damage from equipment and chemicals.
- Handles freezing temperatures better than plastic.
- Black CoalBrass looks like plastic, reducing threat of theft.
- Matched precipitation across spray patterns and radius sizes.
- End, center and side strip patterns available.
- Features brass adjusting screw and high-flow polypropylene filter.
- Fits all Buckner spray pop-ups.
- 5/8" 28 Female thread.

May be used on sprinklers accepting a 5/8"-28 thread (Rainbird®, Richdel®, Weathermatic®, Nelson®, and Buckner®).

## Buckner's brass nozzles are the best performing, longest lasting spray nozzles on the market. Precision designed and tooled from brass, these nozzles are ideal for watering areas requiring precise control of spray patterns and even precipitation. A special coefficient of uniformity (CU) slot ensures matched water disbursement from the base of the sprinkler, all the way to the end of the radius.

And with CoalBrass, you have all the benefits of brass nozzles without as much risk of theft. That's because CoalBrass looks like plastic so it doesn't attract attention.

#### **Operating Ranges**

| U.S.                               | Metric           |
|------------------------------------|------------------|
| <b>Throw:</b> 6´ - 14.6´ radius    | 1.8 - 44 m       |
| <b>Flow:</b> 0.37 <b>-</b> 4.0 gpm | 1.4 - 15.2 l/min |
| <b>Pressure:</b> 10 - 30 psi       | 1 - 2 bars       |
| Trajectory: 0° - 27°               |                  |

## **Shrub Adapters:**

- Shrub adapters fit Buckner's and most competitors' female thread nozzles.
- 1/2" Female NPT inlet for connection to risers; 5/8" 28 Male thread outlet.



## CoalBrass™ Shrub Adapter (SBA)

(shown with brass nozzle)

| CoalBrass <sup>™</sup> Nozzle |                 |               |                         |              |            |  |  |
|-------------------------------|-----------------|---------------|-------------------------|--------------|------------|--|--|
| 5 Radiu                       |                 | 5° Tr         | 5° Trajectory Low Angle |              |            |  |  |
| Nozzle                        | Pressure<br>PSI | Radius<br>ft. | Flow<br>GPM             | Precip.<br>■ | in/hr<br>▲ |  |  |
| B5H*                          | 15              | 4             | 0.74                    | 3.6          | 3.7        |  |  |
| 180°                          | 20              | 5             | 0.9                     | 3.4          | 3.5        |  |  |
| 100                           | 25              | 5             | 1.02                    | 3.0          | 3.1        |  |  |
|                               | 30              | 6             | 1.16                    | 2.8          | 2.9        |  |  |
| B5T*                          | 15              | 4             | 0.49                    | 3.6          | 3.7        |  |  |
| 120°                          | 20              | 5             | 0.59                    | 3.4          | 3.5        |  |  |
| 120                           | 25              | 5             | 0.67                    | 3.0          | 3.1        |  |  |
|                               | 30              | 6             | 0.77                    | 2.8          | 2.9        |  |  |
| B5Q*                          | 15              | 4             | 0.37                    | 3.6          | 3.7        |  |  |
| 90°                           | 20              | 5             | 0.45                    | 3.4          | 3.5        |  |  |
| 30                            | 25              | 5             | 0.51                    | 3.0          | 3.1        |  |  |
|                               | 30              | 6             | 0.58                    | 2.8          | 2.9        |  |  |

| CoalBrass <sup>™</sup> Nozzle |                |               |                    |                  |                 |              | etric |
|-------------------------------|----------------|---------------|--------------------|------------------|-----------------|--------------|-------|
| 1.5m                          | Radiu          | S             | 5° Tra             | jecto            | ry Lo           | w An         | gle   |
| Nozzle                        | Pres<br>(Bars) | sure<br>(kPa) | Radius<br>(meters) | Flow<br>(m³/hr.) | Flow<br>(l/min) | Precip.<br>■ | mm/hr |
| B5H*                          | 1.0            | 68.8          | 1.2                | 0.17             | 2.8             | 90           | 93    |
| 180°                          | 1.4            | 103.1         | 1.5                | 0.20             | 3.4             | 85           | 88    |
| 100                           | 1.7            | 137.5         | 1.5                | 0.23             | 3.9             | 75           | 78    |
|                               | 2.0            | 171.9         | 1.8                | 0.26             | 4.4             | 70           | 73    |
| B5T*                          | 1.0            | 68.8          | 1.2                | 0.11             | 1.9             | 90           | 93    |
| 120°                          | 1.4            | 103.1         | 1.5                | 0.13             | 2.2             | 85           | 88    |
| 120                           | 1.7            | 137.5         | 1.5                | 0.15             | 2.5             | 75           | 78    |
|                               | 2.0            | 171.9         | 1.8                | 0.17             | 2.9             | 70           | 73    |
| B5Q*                          | 1.0            | 68.8          | 1.2                | 0.08             | 1.4             | 90           | 93    |
| 90°                           | 1.4            | 103.1         | 1.5                | 0.10             | 1.7             | 85           | 88    |
| ,0                            | 1.7            | 137.5         | 1.5                | 0.11             | 1.9             | 75           | 78    |
|                               | 2.0            | 171.9         | 1.8                | 0.13             | 2.2             | 70           | 73    |

| CoalBrass™ Nozzle |                 |               |             |         |            |  |
|-------------------|-----------------|---------------|-------------|---------|------------|--|
| 8 Rac             | dius            |               | 0° Tra      | jectory | Flat       |  |
| Nozzle            | Pressure<br>PSI | Radius<br>ft. | Flow<br>GPM | Precip. | in/hr<br>▲ |  |
| B8F               | 15              | 6             | 1.5         | 3.0     | 3.4        |  |
| 360°              | 20              | 7             | 1.6         | 2.7     | 3.1        |  |
|                   | 25              | 8             | 1.8         | 2.4     | 2.7        |  |
|                   | 30              | 9             | 2.0         | 2.1     | 2.4        |  |
| B8H               | 15              | 6             | 0.75        | 3.0     | 3.4        |  |
| 180°              | 20              | 7             | 0.80        | 2.7     | 3.1        |  |
|                   | 25              | 8             | 0.90        | 2.4     | 2.7        |  |
|                   | 30              | 9             | 1.0         | 2.1     | 2.4        |  |
| B8T               | 15              | 6             | 0.51        | 3.0     | 3.4        |  |
| 120°              | 20              | 7             | 0.61        | 2.7     | 3.1        |  |
|                   | 25              | 8             | 0.66        | 2.4     | 2.7        |  |
|                   | 30              | 9             | 0.73        | 2.1     | 2.4        |  |
| B8Q               | 15              | 6             | 0.38        | 3.0     | 3.4        |  |
| 90°               | 20              | 7             | 0.40        | 2.7     | 3.1        |  |

0.45

0.50

2.4

2.7

8

| CoalBrass™ Nozzle |                 |               |             |           |            |  |
|-------------------|-----------------|---------------|-------------|-----------|------------|--|
| 10 R              | adius           | 15° Tra       | jectory     | Low       | Angle      |  |
| Nozzle            | Pressure<br>PSI | Radius<br>ft. | Flow<br>GPM | Precip. ■ | in/hr<br>▲ |  |
| B10F              | 15              | 7             | 1.6         | 2.3       | 2.6        |  |
| 360°              | 20              | 8             | 1.8         | 2.0       | 2.3        |  |
|                   | 25              | 9             | 2.0         | 1.7       | 2.0        |  |
|                   | 30              | 10            | 2.2         | 1.5       | 1.7        |  |
| B10H*             | 15              | 7             | 0.80        | 2.3       | 2.6        |  |
| 180°              | 20              | 8             | 0.90        | 2.0       | 2.3        |  |
|                   | 25              | 9             | 1.0         | 1.7       | 2.0        |  |
|                   | 30              | 10            | 1.10        | 1.5       | 1.7        |  |
| B10T*             | 15              | 7             | 0.53        | 2.3       | 2.6        |  |
| 120°              | 20              | 8             | 0.61        | 2.0       | 2.3        |  |
|                   | 25              | 9             | 0.66        | 1.7       | 2.0        |  |
|                   | 30              | 10            | 0.73        | 1.5       | 1.7        |  |
| B10Q*             | 15              | 7             | 0.40        | 2.3       | 2.6        |  |
| 90°               | 20              | 8             | 0.45        | 2.0       | 2.3        |  |
|                   | 25              | 9             | 0.50        | 1.7       | 2.0        |  |
|                   | 30              | 10            | 0.55        | 1.5       | 1.7        |  |

| CoalBrass™ Nozzle |                 |               |             |         |            |  |
|-------------------|-----------------|---------------|-------------|---------|------------|--|
| 12 Rac            | dius            | 27° Tr        | ajecto      | ry Sta  | ndard      |  |
| Nozzle            | Pressure<br>PSI | Radius<br>ft. | Flow<br>GPM | Precip. | in/hr<br>▲ |  |
| B12F              | 15              | 10            | 1.6         | 1.5     | 1.8        |  |
| 360°              | 20              | 10.5          | 1.8         | 1.6     | 1.8        |  |
|                   | 25              | 11            | 2.0         | 1.6     | 1.8        |  |
|                   | 30              | 12            | 2.2         | 1.7     | 1.7        |  |
| B12TQ*            | 15              | 10            | 1.04        | 1.5     | 1.8        |  |
| 270°              | 20              | 10.5          | 1.2         | 1.6     | 1.8        |  |
|                   | 25              | 11            | 1.32        | 1.6     | 1.8        |  |
|                   | 30              | 12            | 1.46        | 1.7     | 1.7        |  |
| B12H*             | 15              | 10            | 0.80        | 1.5     | 1.8        |  |
| 180°              | 20              | 10.5          | 0.90        | 1.6     | 1.8        |  |
|                   | 25              | 11            | 1.0         | 1.6     | 1.8        |  |
|                   | 30              | 12            | 1.1         | 1.7     | 1.7        |  |
| B12T*             | 15              | 10            | 0.52        | 1.5     | 1.8        |  |
| 120°              | 20              | 10.5          | 0.61        | 1.6     | 1.8        |  |
|                   | 25              | 11            | 0.66        | 1.6     | 1.8        |  |
|                   | 30              | 12            | 0.73        | 1.7     | 1.7        |  |
| B12Q*             | 15              | 10            | 0.40        | 1.5     | 1.8        |  |
| 90°               | 20              | 10.5          | 0.45        | 1.6     | 1.8        |  |
|                   | 25              | 11            | 0.50        | 1.6     | 1.8        |  |
|                   | 30              | 12            | 0.55        | 1.7     | 1.7        |  |

<sup>\*</sup> denotes models that have CU slots

## To Specify:

| B 15 F | 15 F |
|--------|------|
|--------|------|

Brass Nozzle Radius 15 ft

Full

Pattern

#### **CoalBrass™ Nozzle** Metric 2.4m Radius **0° Trajectory Flat** Pressure (Bars) (kPa) Radius Flow Flow (meters) (m²/hr.) (l/min) Nozzle B8F 1.0 103.1 1.8 0.34 5.7 75 85 1.4 137.5 2.1 0.36 6.1 68 78 360° 1.7 171.9 2.4 0.41 60 68 6.8 2.0 206.3 2.7 53 0.45 7.6 60 В8Н 1.0 103.1 1.8 0.17 2.9 75 85 1.4 137.5 2.1 0.18 3.0 78 180° 171.9 2.4 0.20 2.0 206.3 0.23 53 2.7 3.8 60 B8T 1.0 103.1 1.8 0.11 1.9 75 85 1.4 137.5 2.1 0.14 2.3 68 78 120° 1.7 171.9 2.4 0.15 2.5 60 68 2.0 206.3 2.7 53 0.16 2.8 60 B8Q 103.1 1.0 1.8 0.08 1.4 75 85 78 1.4 137.5 2.1 0.09 1.5 68 1.7 171.9 2.4 0.10 1.7 60 68

0.11

60

206.3

| CoalBrass Nozzle |                |                  |                    |                  |                 | N         | letric     |
|------------------|----------------|------------------|--------------------|------------------|-----------------|-----------|------------|
| 3m F             | Radiu          | ıs 15            | ° Traj             | ector            | y Lo            | w A       | ngle       |
| Nozzle           | Pres<br>(Bars) | ssure<br>) (kPa) | Radius<br>(meters) | Flow<br>(m³/hr.) | Flow<br>(l/min) | Precip. ■ | mm/hr<br>▲ |
| B10F             | 1.0            | 103.1            | 2.1                | 0.36             | 6.1             | 58        | 65         |
| 360°             | 1.4            | 137.5            | 2.4                | 0.41             | 6.8             | 50        | 58         |
|                  | 1.7            | 171.9            | 2.7                | 0.45             | 7.6             | 43        | 50         |
|                  | 2.0            | 206.3            | 3.0                | 0.50             | 8.4             | 38        | 43         |
| B10H*            | 1.0            | 103.1            | 2.1                | 0.18             | 3.0             | 58        | 65         |
| 180°             | 1.4            | 137.5            | 2.4                | 0.20             | 3.4             | 50        | 58         |
|                  | 1.7            | 171.9            | 2.7                | 0.23             | 3.8             | 43        | 50         |
|                  | 2.0            | 206.3            | 3.0                | 0.25             | 4.2             | 38        | 43         |
| B10T*            | 1.0            | 103.1            | 2.1                | 0.12             | 2.0             | 58        | 65         |
| 120°             | 1.4            | 137.5            | 2.4                | 0.14             | 2.3             | 50        | 58         |
|                  | 1.7            | 171.9            | 2.7                | 0.15             | 2.5             | 43        | 50         |
|                  | 2.0            | 206.3            | 3.0                | 0.16             | 2.8             | 38        | 43         |
| B10Q*            | 1.0            | 103.1            | 2.1                | 0.09             | 1.5             | 58        | 65         |
| 90°              | 1.4            | 137.5            | 2.4                | 0.10             | 1.7             | 50        | 58         |
|                  | 1.7            | 171.9            | 2.7                | 0.11             | 1.9             | 43        | 50         |
|                  | 2.0            | 206.3            | 3.0                | 0.12             | 2.1             | 38        | 43         |

| CoalBrass™ Nozzle Metric |                |               |                    |                  |                 |           |            |
|--------------------------|----------------|---------------|--------------------|------------------|-----------------|-----------|------------|
| 3.7m                     | Rad            | ius 2         | 27° Tra            | ajecto           | ory             | Stan      | dard       |
| Nozzle                   | Pres<br>(Bars) | sure<br>(kPa) | Radius<br>(meters) | Flow<br>(m³/hr.) | Flow<br>(l/min) | Precip. ■ | mm/hr<br>▲ |
| B12F                     | 1.0            | 103.1         | 3.0                | 0.36             | 6.1             | 38        | 45         |
|                          | 1.4            | 137.5         | 3.2                | 0.41             | 6.8             | 40        | 45         |
|                          | 1.7            | 171.9         | 3.3                | 0.45             | 7.6             | 40        | 45         |
|                          | 2.0            | 206.3         | 3.6                | 0.50             | 8.4             | 43        | 43         |
| B12TQ*                   | 1.0            | 103.1         | 3.0                | 0.23             | 4.0             | 38        | 45         |
|                          | 1.4            | 137.5         | 3.2                | 0.27             | 4.6             | 40        | 45         |
|                          | 1.7            | 171.9         | 3.3                | 0.30             | 5.0             | 40        | 45         |
|                          | 2.0            | 206.3         | 3.6                | 0.33             | 5.5             | 43        | 43         |
| B12H*                    | 1.0            | 103.1         | 3.0                | 0.18             | 3.0             | 38        | 45         |
|                          | 1.4            | 137.5         | 3.2                | 0.20             | 3.4             | 40        | 45         |
|                          | 1.7            | 171.9         | 3.3                | 0.23             | 3.8             | 40        | 45         |
|                          | 2.0            | 206.3         | 3.6                | 0.25             | 4.2             | 43        | 43         |
| B12T*                    | 1.0            | 103.1         | 3.0                | 0.12             | 2.0             | 38        | 45         |
|                          | 1.4            | 137.5         | 3.2                | 0.14             | 2.3             | 40        | 45         |
|                          | 1.7            | 171.9         | 3.3                | 0.15             | 2.5             | 40        | 45         |
|                          | 2.0            | 206.3         | 3.6                | 0.16             | 2.8             | 43        | 43         |
| B12Q*                    | 1.0            | 103.1         | 3.0                | 0.09             | 1.5             | 38        | 45         |
|                          | 1.4            | 137.5         | 3.2                | 0.10             | 1.7             | 40        | 45         |
|                          | 1.7            | 171.9         | 3.3                | 0.11             | 1.9             | 40        | 45         |
|                          | 2.0            | 206.3         | 3.6                | 0.12             | 2.1             | 43        | 43         |

| M U 4 | ZZLE PAT             | TERMS       |
|-------|----------------------|-------------|
| Code  | Description          |             |
| F     | Full circle          | 360°        |
| Н     | Half circle          | 180°        |
| T     | One-third circle     | 120°        |
| Q     | Quarter circle       | 90°         |
| TT    | Two-thirds circle    | 240°        |
| TQ    | Three-quarter circle | 270°        |
| CST   | Center strip         | <b>▶</b> ○◀ |
| EST   | End strip            | <b>○</b> ◀  |
| SST   | Side strip           |             |

### CoalBrass™ Nozzle

| 15 Radi | us 2            | ?7° Tra       | jectoı      | y Sta   | ndard |
|---------|-----------------|---------------|-------------|---------|-------|
| Nozzle  | Pressure<br>PSI | Radius<br>ft. | Flow<br>GPM | Precip. | in/hr |
| B15F    | 15              | 11.5          | 2.8         | 2.0     | 2.4   |
| 360°    | 20              | 12            | 3.3         | 1.6     | 1.8   |
|         | 25              | 14            | 3.6         | 1.6     | 1.8   |
|         | 30              | 14.6          | 4.0         | 1.7     | 1.7   |
| B15TQ*  | 15              | 11.5          | 2.1         | 2.0     | 2.4   |
| 270°    | 20              | 12            | 2.47        | 1.6     | 1.8   |
|         | 25              | 14            | 2.7         | 1.6     | 1.8   |
|         | 30              | 14.6          | 3.0         | 1.7     | 1.7   |
| B15TT*  | 15              | 11.5          | 1.9         | 2.0     | 2.4   |
| 240°    | 20              | 12            | 2.2         | 1.6     | 1.8   |
|         | 25              | 14            | 2.4         | 1.6     | 1.8   |
|         | 30              | 14.6          | 2.6         | 1.7     | 1.7   |
| B15H*   | 15              | 11.5          | 1.4         | 2.0     | 2.4   |
| 180°    | 20              | 12            | 1.65        | 1.6     | 1.8   |
|         | 25              | 14            | 1.8         | 1.6     | 1.8   |
|         | 30              | 14.6          | 2.0         | 1.7     | 1.7   |
| B15T*   | 15              | 11.5          | 0.95        | 2.0     | 2.4   |
| 120°    | 20              | 12            | 1.1         | 1.6     | 1.8   |
|         | 25              | 14            | 1.2         | 1.6     | 1.8   |
|         | 30              | 14.6          | 1.3         | 1.7     | 1.7   |
| B15Q*   | 15              | 11.5          | 0.70        | 2.0     | 2.4   |
| 90°     | 20              | 12            | 0.82        | 1.6     | 1.8   |
|         | 25              | 14            | 0.90        | 1.6     | 1.8   |
|         | 30              | 14.6          | 1.0         | 1.7     | 1.7   |

| 15 Rad   | ius 3           | 0° Traje      | ectory      | Standard      |
|----------|-----------------|---------------|-------------|---------------|
| Nozzle   | Pressure<br>PSI | Radius<br>ft. | Flow<br>GPM | Precip. in/hr |
| B15SST*  | 15              | 4 x 26        | 0.9         | 1.7           |
|          | 20              | 4 x 28        | 1.0         | 1.7           |
|          | 25              | 4 x 28        | 1.1         | 1.9           |
|          | 30              | 4 x 30        | 1.2         | 1.9           |
| B15CST*  | 15              | 4 x 26        | 0.9         | 1.7           |
|          | 20              | 4 x 28        | 1.0         | 1.7           |
| <b>O</b> | 25              | 4 x 28        | 1.1         | 1.9           |
|          | 30              | 4 x 30        | 1.2         | 1.9           |
| B15EST*  | 15              | 4 x 26        | 0.45        | 1.7           |
|          | 20              | 4 x 28        | 0.50        | 1.7           |
| 0        | 25              | 4 x 28        | 0.55        | 1.9           |
|          | 30              | 4 x 30        | 0.60        | 1.9           |
|          |                 |               |             |               |

| 4.3m R | ladiu | is <b>27</b> °   | Trajec             | tory S           | tanda           | rd - N  | letric     |
|--------|-------|------------------|--------------------|------------------|-----------------|---------|------------|
| Nozzle |       | ssure<br>) (kPa) | Radius<br>(meters) | Flow<br>(m³/hr.) | Flow<br>(l/min) | Precip. | mm/hr<br>▲ |
| B15F   | 1.0   | 103.1            | 3.5                | 0.63             | 10.6            | 50      | 60         |
| 360°   | 1.4   | 137.5            | 3.6                | 0.74             | 12.5            | 40      | 45         |
|        | 1.7   | 171.9            | 4.2                | 0.81             | 13.7            | 40      | 45         |
|        | 2.0   | 206.3            | 4.4                | 0.90             | 15.2            | 43      | 43         |
| B15TQ* | 1.0   | 103.1            | 3.5                | 0.47             | 8.0             | 50      | 60         |
| 270°   | 1.4   | 137.5            | 3.6                | 0.56             | 9.4             | 40      | 45         |
|        | 1.7   | 171.9            | 4.2                | 0.61             | 10.3            | 40      | 45         |
|        | 2.0   | 206.3            | 4.4                | 0.68             | 11.4            | 43      | 43         |
| B15TT* | 1.0   | 103.1            | 3.5                | 0.43             | 7.2             | 50      | 60         |
| 240°   | 1.4   | 137.5            | 3.6                | 0.50             | 8.4             | 40      | 45         |
|        | 1.7   | 171.9            | 4.2                | 0.54             | 9.1             | 40      | 45         |
|        | 2.0   | 206.3            | 4.4                | 0.59             | 9.9             | 43      | 43         |
| B15H*  | 1.0   | 103.1            | 3.5                | 0.32             | 5.3             | 50      | 60         |
| 180°   | 1.4   | 137.5            | 3.6                | 0.37             | 6.3             | 40      | 45         |
|        | 1.7   | 171.9            | 4.2                | 0.41             | 6.8             | 40      | 45         |
|        | 2.0   | 206.3            | 4.4                | 0.45             | 7.6             | 43      | 43         |
| B15T*  | 1.0   | 103.1            | 3.5                | 0.21             | 3.6             | 50      | 60         |
| 120°   | 1.4   | 137.5            | 3.6                | 0.25             | 4.2             | 40      | 45         |
|        | 1.7   | 171.9            | 4.2                | 0.27             | 4.6             | 40      | 45         |
|        | 2.0   | 206.3            | 4.4                | 0.29             | 4.9             | 43      | 43         |
| B15Q*  | 1.0   | 103.1            | 3.5                | 0.16             | 2.7             | 50      | 60         |
| 90°    | 1.4   | 137.5            | 3.6                | 0.18             | 3.1             | 40      | 45         |
|        | 1.7   | 171.9            | 4.2                | 0.20             | 3.4             | 40      | 45         |
|        | 2.0   | 206.3            | 4.4                | 0.23             | 3.8             | 43      | 43         |

| 4.3m Rad | ius    | 30° Tra | ajectory | Standa  | rd - Metric   |
|----------|--------|---------|----------|---------|---------------|
|          |        | sure    | Flow     | Flow    | Precip. mm/hr |
| Nozzle   | (Bars) | (kPa)   | (m³/hr.) | (l/min) |               |
| B15SST*  | 1.0    | 103.1   | 0.20     | 3.4     | 43            |
|          | 1.4    | 137.5   | 0.23     | 3.8     | 43            |
|          | 1.7    | 171.9   | 0.25     | 4.2     | 48            |
|          | 2.0    | 206.3   | 0.27     | 4.6     | 48            |
| B15CST*  | 1.0    | 103.1   | 0.20     | 3.4     | 43            |
|          | 1.4    | 137.5   | 0.23     | 3.8     | 43            |
| <b>O</b> | 1.7    | 171.9   | 0.25     | 4.2     | 48            |
|          | 2.0    | 206.3   | 0.27     | 4.6     | 48            |
| B15EST*  | 1.0    | 103.1   | 0.10     | 1.7     | 43            |
|          | 1.4    | 137.5   | 0.11     | 1.9     | 43            |
| 0        | 1.7    | 171.9   | 0.12     | 2.1     | 48            |
|          | 2.0    | 206.3   | 0.14     | 2.3     | 48            |





2" Pop-up spray head for residential and commercial properties where a moderately priced, high quality sprinkler is desired.

| MODE      | L DESCRIPTIONS                                  |  |
|-----------|---|--|
| Model No. | Description                                     |  |
| BPHM      | 2" Brass pop-up, accepts "B" series nozzles.    |  |
|           | (Also accepts discontinued "M" series nozzles.) |  |

## **Brass Pop-Up Features and Benefits:**

- Body constructed of cast red brass.
- Inner body and spindle machined from yellow brass.
- Metal-to-metal seating.
- Accepts "B" series nozzles. (Also accepts discontinued "M" series).

## **Specifications**

• Overall height: 43/4".

• Top diameter: 21/4".

• 1/2" NPT inlet.

• Maximum pressure: 50 psi.

• Operating pressure: 15 - 30 psi.









#### **Features and Benefits:**

- Available in 11/4" and 2" pop-up action
- Body constructed of cast red brass.
- Yellow brass nozzles with adjusting screw.

### **Specifications**

- 1/2" NPT inlet.
- Operating pressure: 15 30 psi.
- Spacing: 8' 15'.
- Flow range 0.90 4.00 gpm.

| M O D     | EL DESCRIPTIONS                                 |  |  |  |  |
|-----------|---|--|--|--|--|
| Model No. | Description                                     |  |  |  |  |
| 18        | Red brass 11/4" pop-up body only.               |  |  |  |  |
| 18HP      | Red brass 2" pop-up body only.                  |  |  |  |  |
| 19        | Red brass shrub body.                           |  |  |  |  |
| 18SF      | Red brass 11/4" pop-up full spray.              |  |  |  |  |
| 18SH      | Red brass 11/4" pop-up half spray.              |  |  |  |  |
| 18SQ      | Red brass 11/4" pop-up quarter spray.           |  |  |  |  |
| SF        | Brass nozzle - 15' radius - full spray.         |  |  |  |  |
| SH        | Brass nozzle - 15' radius - half spray.         |  |  |  |  |
| SQ        | Brass nozzle - 15' radius - quarter spray.      |  |  |  |  |
| SS        | Brass nozzle - 15' radius - center strip spray. |  |  |  |  |

## **GARDEN VALVES AND HOSE BIBBS**





| M O D     | EL DESCRIPTIONS  |  |  |  |  |
|-----------|--|--|--|--|--|
| Model No. | Description  |  |  |  |  |
| HB1F      | Hose bibb, $3/4$ " Male HT x $1/2$ " Female NPT, red brass.                    |  |  |  |  |
| HB1M      | Hose bibb, $3/4$ " Male HT x $1/2$ " Male NPT, red brass.                      |  |  |  |  |
| HB2F      | Hose bibb, 3/4" Male HT x 3/4" Female NPT, red brass.                          |  |  |  |  |
| HB2M      | Hose bibb, 3/4" Male HT x 3/4" Male NPT, red brass.                            |  |  |  |  |
| VBH       | Hose bibb vacuum breaker.  |  |  |  |  |
| B401      | Bent nose garden valve, 3/4" Male HT x 3/4" Female NPT, red brass.             |  |  |  |  |
| B402      | Bent nose garden valve, 3/4" Male HT x 1" Female NPT, red brass.               |  |  |  |  |
| I401      | Inverted nose garden valve, 3/4" Male HT x 3/4" Female NPT, red brass.         |  |  |  |  |
| I402      | Inverted nose garden valve, 3/4" Male HT x 1" Female NPT, red brass.           |  |  |  |  |
| B401LK    | Bent nose garden valve, 3/4" Hose x 3/4" Female NPT, loose key, red brass.     |  |  |  |  |
| B402LK    | Bent nose garden valve, 3/4" Hose x 1" Female NPT, loose key, red brass.       |  |  |  |  |
| I401LK    | Inverted nose garden valve, 3/4" Hose x 3/4" Female NPT, loose key, red brass. |  |  |  |  |
| I401LKY   | Inverted nose garden valve, 3/4" Hose x 3/4" Female NPT, loose key, red brass. |  |  |  |  |
| TLK       | Garden valve loose key.  |  |  |  |  |



## **BRASS HOSE & PIPE FITTINGS**



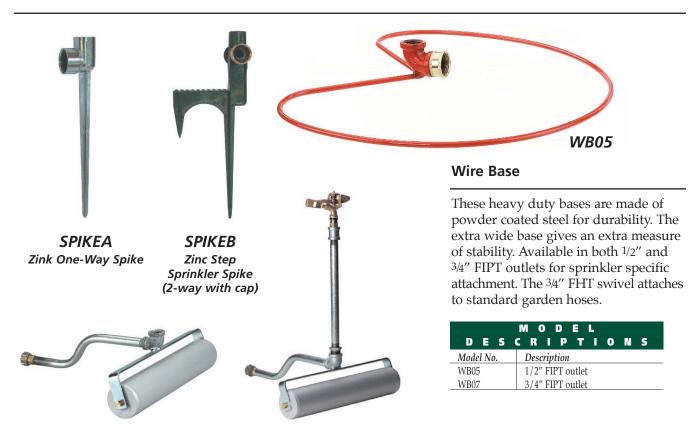
| Model No. | Description   |  |  |  |
|-----------|---|--|--|--|
| 5         | Swivel fitting, 3/4" Female HT x 1/2" Male NPT.                       |  |  |  |
| 7         | Swivel fitting, 3/4" Female HT x 3/4" Female HT.                      |  |  |  |
| 8         | Non-swivel fitting, 3/4" Male HT x 3/4" Male NPT x 1/2" Female NPT.   |  |  |  |
| 9         | Non-swivel fitting, 3/4" Female HT x 3/4" Male NPT x 1/2" Female NPT. |  |  |  |
| 10        | Non-swivel fitting, $3/4$ " Male HT x $1/2$ " Female NPT.             |  |  |  |
| 12        | Swivel fitting, 3/4" Female HT x 3/4" Female NPT.                     |  |  |  |
| 13        | Swivel fitting, 3/4" Female HT x 1/2" Female NPT.                     |  |  |  |
| 14        | Hose cap, 3/4" Female HT.   |  |  |  |
| HA10      | Non-swivel fitting, 3/4" Male HT x 1" Female HT (was extnozadp0710).  |  |  |  |

## **NOZZLES & DRAIN VALVES**





## **SPRINKLER BASES**



## **Roller Sprinkler Bases**

#### (RB1507)

- 15" Metal Roller Base
- 3/4" Hose
- accepts 3/4" Male NPT Sprinkler

#### (RB2210)

- 22" Metal Roller Base
- 1" Hose
- accepts 1" Male NPT Sprinkler

| M O D E L<br>D E S C R I P T I O N S |                 |  |  |  |
|--------------------------------------|-----------------|--|--|--|
| Model No. Description                |                 |  |  |  |
| RB1507                               | 15" Roller Base |  |  |  |
| RB2210                               | 22" Roller Base |  |  |  |



VBPRASKIT 3/4"x 20 Thread 24 VAC



**VBPRASHVKIT** 

3/4"x 20 Thread (HV) 115 VAC High Voltage



**VBPRASHDKIT** 

3/4"x 20 Thread Heavy Duty (HD)



**VDWASKIT** 

3/4"x 20 Thread 24 VAC 3-Way Dirty Water Solenoid



16200 3/4"x 20 Thread 24 VAC





16075

3/4"x 20 Thread (HV) 3-Way 24 VAC 1/16" Orifice



3/4"x 20 Thread 115 VAC



**16302** 3/4"x 20 Thread 220 VAC



16075-A

3/4"x 20 Thread 3-Way 24 VAC 3/64" Orifice

## **SERVICE ACCESSORIES**



PG200

Pressure Gauge 0 - 200 psi 3/4" FHT Swivel



**TPT** 

Large Pitot Tube 1/4" NPT Inlet



NEPO50C

Nipple Extractor for 1/2" Nipple

| Buckner/Superior Part # | Aqualine Part # | Champion Part # | SMG Part Description  |
|-------------------------|-----------------|-----------------|---|
| 5                       | HPF5            | -               | Hose Fitting 3/4" Female Hose x 1/2" Male NPT               |
| 7                       | HPF7            |                 | Hose Fitting 3/4" Female Hose x 3/4" Female Hose            |
| 8                       | HPF8            |                 | Hose Fitting 3/4" Male Hose x 3/4" Male x 1/2" Female NPT   |
| 9                       | HPF9            | -               | Hose Fitting 3/4" Female Hose x 3/4" Male x 1/2" Female NPT |
| 10                      | HPF10           | -               | Hose Fitting 3/4" Male Hose x 1/2" Male NPT                 |
|                         |                 | -               |   |
| 12                      | HPF12           | -               | Hose Fitting 3/4" Female Hose x 3/4" Female NPT             |
| 13                      | HPF13           | -               | Hose Fitting 3/4" Female Hose x 1/2" Female NPT             |
| 14                      | HPF14           | -               | Hose Cap 3/4" Female  |
| 18                      | BLR             | 18              | Red Brass Pop-Up Body Only                                  |
| 19                      | BS              | 19              | Red Brass Shrub-Body Only                                   |
| 18HP                    | BHR             | 18HP            | Red Brass High Pop-Up Body Only                             |
| 18SF                    | -               | 18SF            | Red Brass Pop-Up Full Spray                                 |
| 18SH                    | -               | 18SH            | Red Brass Pop-Up Half Spray                                 |
| 18SQ                    | -               | 18SQ            | Red Brass Pop-Up Quarter Spray                              |
| ASB07                   | -               | V19-466P-075    | 3/4" NPT, brass anti-siphon body                            |
| ASB07Y                  | 600             | V19-466P-075Y   | Anti-Siphon Body 3/4" Yellow Brass                          |
| ASB10                   | -               | V19-466P-100    | 1" NPT, brass anti-siphon body                              |
| ASB10Y                  | 602             | V19-466-100Y    | Anti-Siphon Body 1" Yellow Brass                            |
| ASBU07                  | -               | V19-466-075     | 3/4" NPT, brass anti-siphon body w/union                    |
| ASBU07Y                 | 601             | 466-075Y        | Anti-Siphon Body With Union 3/4" Yellow Brass               |
| ASBU10                  | -               | V19-466-100     | 1" NPT, brass anti-siphon body w/union                      |
| ASBU10Y                 | 603             | V19-466-100Y    | Anti-Siphon Body With Union 1" Yellow Brass                 |
| ASV07                   | -               | 466P-075        | 3/4" NPT, brass anti-siphon valve                           |
| ASV07Y                  | AS-075          | 466P-075Y       | Anti-Siphon Valve, 3/4" Yellow Brass                        |
| ASV10                   | -               | 466P-100        | 1" NPT, brass anti-siphon valve                             |
| ASV10Y                  | AS-100          | 466P-100Y       | Anti-Siphon Valve, 1" Yellow Brass                          |
| ASVU07                  | -               | 466-075         | 3/4" NPT, brass anti-siphon valve w/union                   |
| ASVU07Y                 | ASU-075         | 466-075Y        | Anti-Siphon Valve With Union 3/4"                           |
| ASVU10                  | -               | 466-100         | 1" NPT, brass anti-siphon valve w/union                     |
| ASVU10Y                 | ASU-100         | 466-100Y        | Anti-Siphon Valve W/Union 1" Yellow Brass                   |
| AV075                   | -               | 200RS-075       | 3/4" Angle Valve with Cross Handle - Red Brass              |
| AV075Y                  | AV-075          | 200RS-075Y      | 3/4" Angle Valve with Cross Handle - Yellow Brass           |
| AV100                   | -               | 200RS-100       | 1" Angle Valve with Cross Handle - Red Brass                |
| AV100Y                  | AV-100          | 200RS-100Y      | 1" Angle Valve with Cross Handle - Yellow Brass             |
| AV120                   | -               | 200RS-125       | 1-1/4" Angle Valve with Cross Handle - Red Brass            |
| AV120Y                  | AV-125          | 200RS-125Y      | 1-1/4" Angle Valve with Cross Handle - Yellow Brass         |
| AV150                   | -               | 200RS-150       | 1-1/2" Angle Valve with Cross Handle - Red Brass            |
| AV150Y                  | AV-150          | 200RS-150Y      | 1-1/2" Angle Valve with Cross Handle - Yellow Brass         |
| AV200                   | -               | 200RS-200       | 2" Angle Valve with Cross Handle - Red Brass                |
| AV200Y                  | AV-200          | 200RS-200Y      | 2" Angle Valve with Cross Handle - Yellow Brass             |
| AVB07                   | -               | 262-075         | 3/4" NPT, Atmospheric Vacuum breaker                        |
| AVB07Y                  | AVB-075         | 262-075Y        | 3/4" Atmospheric Vacuum Breaker Yellow Brass                |
| AVB10                   | -               | 262-100         | 1" NPT, Atmospheric Vacuum breaker                          |
| AVB10Y                  | AVB-100         | 262-100Y        | 1" NPT, Atmospheric Vacuum breaker - Yellow Brass           |
| AVB12                   | -               | 262-125         | Atmospheric Vacuum Breaker 1.25" Red Brass                  |
| AVB12Y                  | AVB-125         | 262-125Y        | Atmospheric Vacuum Breaker 1.25" Yellow Brass               |
| AVB15                   | -               | 262-150         | Atmospheric Vacuum Breaker 1.5" Red Brass                   |
| AVB15Y                  | AVB-150         | 262-150Y        | Atmospheric Vacuum Breaker 1.5" Yellow Brass                |
| AVB20                   | -               | 262-200         | Atmospheric Vacuum Breaker 2" Red Brass                     |
| AVB20Y                  | AVB-200         | 260-200Y        | Atmospheric Vacuum Breaker 2" Yellow Brass                  |
| AVBU07                  | -               | 362-075         | 3/4" NPT, Atmospheric Vacuum Breaker w/ Union               |
| AVBU07Y                 | AVBU-075        | 362-075Y        | 3/4" NPT, Atmospheric Vacuum Breakerw/Union - Yellow Brass  |
| AVBU10                  | -               | 362-100         | 1" NPT, Atmospheric Vacuum Breaker w/ Union                 |
| AVBU10Y                 | AVBU-100        | 362-100Y        | 1" NPT, Atmospheric Vacuum Breaker w/ Union - Yellow Brass  |
| AVBU12                  | -               | 362-125         | Atmospheric Vacuum Breaker W/Union 1.25"                    |
| AVBU12Y                 | AVBU-125        | 362-125Y        | Atmosperic Vacuum Breakerw/Union 1.25" Yellow Brass         |
| AVBU15                  | -               | 362-150         | Atmospheric Vacuum Breaker W/Union 1.5"                     |
| AVBU15Y                 | AVBU-150        | 362-150Y        | Atmosperic Vacuum Breaker W/Union 1.5" Yellow Brass         |
| AVBU20                  | -               | 362-200         | Atmospheric Vacuum Breaker W/Union 2"                       |
| AVBU20Y                 | AVBU-200        | 362-200Y        | Atmosperic Vacuum Breaker W/Union 2" Yellow Brass           |
| AVU075                  | -               | 300RS-075       | Angle Valve W/Union 3/4" Red Brass                          |
| AVU075Y                 | AVU-075         | 300RS-075Y      | Angle Valve W/Union 3/4" Yellow Brass                       |
| AVU100                  | -               | 300RS-100       | Angle Valve W/Union 1" Red Brass                            |
| AVU100Y                 | AVU-100         | 300RS-100Y      | Angle Valve W/Union 1" Yellow Brass                         |
| AVU120                  | -               | 300RS-125       | Angle Valve W/Union 1.25" Red Brass                         |
| AVU120Y                 | AVU-125         | 300RS-125Y      | Angle Valve W/Union 1.25" Yellow Brass                      |
|                         |                 |                 | J   |

| Buckner/Superior Part # | Aqualine Part # | Champion Part # | SMG Part Description   |
|-------------------------|-----------------|-----------------|--|
| AVU150                  | · -             | 300RS-150       | Angle Valve W/Union 1.5." Red Brass                                |
| AVU150Y                 | AVU-150         | 300RS-150Y      | Angle Valve W/Union 1.50" Yellow Brass                             |
| AVU200                  | -               | 300RS-200       | Angle Valve W/Union 2" Red Brass                                   |
| AVU200Y                 | AVU-200         | 300RS-200Y      | Angle Valve W/Union 2" Yellow Brass                                |
| ASVUW07Y                | ASUW-075        | 466W-075Y       | Anti-Siphon Valve W/ Union, Wheel Handle 3/4"                      |
| ASVUW10Y                | ASUW-100        | 466W-100Y       | Anti-Siphon Valve W/ Union, Wheel Handle 1"                        |
| ASVW07Y                 | ASW-075         | 466PW-075Y      | Anti-Siphon Valve W/ Wheel Handle 3/4"                             |
| ASVW10Y                 | ASW-100         | 466PW-100Y      | Anti-Siphon Valve W/ Wheel Handle 1"                               |
| B400                    | -               | B-400           | Garden Valve Bent Nose 3/4" Mht X 1/2" Fnpt Red Brass              |
| B400Y                   | GV-050          | B-401           | Garden Valve 3/4"Mht X 1/2" Fnpt Yellow Brass                      |
| B401                    | -               | B-401LK         | Garden Valve 3/4" x 3/4" Female NPT                                |
| B401LK                  | GV-075L         | B-400LK         | Garden Valve 3/4" x 3/4" Female NPT Loose Key                      |
| B401Y                   | GV-075          | -               | Garden Valve 3/4" Mht 3/4" Fnpt Yellow Brass                       |
| B402                    | -               | B-402           | Garden Valve 3/4" x 1" Female NPT                                  |
| B402LK                  | GV-100L         | B-402LK         | Garden Valve 3/4" x 1" Female NPT Loose Key                        |
| B402Y                   | GV-100          | -               | Garden Valve 3/4" Mht X 1" Fnpt Yellow Brass                       |
| BDV                     | -               | DV-050          | Valve, Ball Drain 1/2"   |
| ВРНМ                    | BHR             | 18HP            | 1/2" NPT, Brass Pop-Up, 2" High                                    |
| BPM                     | BLR             | 18              | 1/2" NPT, Brass Pop-Up, 1" High                                    |
| G200                    | 200PGL          | G200-C          | Pressure Gauge, 0-200 PSI, 3/4" FHT Swivel                         |
| GS10                    | -               | -               | Greens Spray Nozzle, 1" Female Hose Inlet                          |
| HA10                    | -               | -               | Hose Adaptor Kit 3/4" to 1" Hose Thread                            |
| HB1F                    | -               | HB-1F-D         | Hose Bibb 3/4" x 1/2" Female NPT                                   |
| HB1FY                   | HB-050F         | -               | Hose Bib 3/4"Mht X 1/2" Fnpt Yellow Brass                          |
| HB1M                    | -               | HB-1M           | Hose Bibb 3/4" x 1/2' Male NPT                                     |
| HB1MY                   | HB-050M         | -               | Hose Bib 3/4"Mht X 1/2" Mnpt Yellow Brass                          |
| HB2F                    | -               | HB-2F           | Hose Bibb 3/4" x 3/4" Female NPT                                   |
| HB2FY                   | HB-075F         | -               | Hose Bib 3/4"Mht X 3/4" Fnpt Yellow Brass                          |
| HB2M                    | -               | HB-2M           | Hose Bibb 3/4" x 3/4" Male NPT                                     |
| HB2MY                   | HB-075M         | -               | Hose Bib 3/4" Mht X 3/4" Fnpt Yellow Brass                         |
| 1400                    | -               | I-400           | Garden Valve Inverted 3/4" X 1/2" Female Pipe Thread               |
| 1400Y                   | GV-050IN        | -               | Garden Valve Inverted 3/4" Mht X 1/2" Fnpt Yellow Brass            |
| 1401                    | -               | I-401           | Inv. Garden Valve 3/4" x 3/4" Female NPT                           |
| I401LK                  | -               | I-401LK         | Inv. Garden Valve 3/4" x 3/4" Female NPT Loose Key                 |
| I401LKY                 | GV-050INL       | -               | Garden Valve Inverted Loose Key 3/4" Mht X 3/4" Fnpt Yellow Brass  |
| I401Y                   | GV-075IN        | -               | Garden Valve Inverted 3/4" Mht X 3/4" Fnpt Yellow Brass            |
| 1402                    | -               | I-402           | Inv. Garden Valve 3/4" x 1" Female NPT                             |
| 1402Y                   | GV-100IN        | -               | Garden Valve Inverted 3/4"Mht X 1" Fnpt Yellow Brass               |
| NEP050C                 | NE-ZINC         | -               | Nipple Extractor for 1/2" Nipple                                   |
| PG200                   | 200PGS          | G200-C          | Pressure Gage 200 Psi  |
| RB1507                  | -               | -               | 15" Metal Roller Base, 3/4" Hose, accepts 3/4" Male NPT Sprinkler  |
| RB2210                  | -               | -               | 22" Metal Roller Base, 1" Hose, accepts 1" Male NPT Sprinkler      |
| RK-30C                  | RK1             | RK-30C          | 3/4" Anti-Siphon Valve Rebuild Kit                                 |
| RK-31C                  | RK2             | RK-31C          | 1" Anti-Siphon Valve Rebuild Kit                                   |
| RK-6C                   | RK4             | RK-6C           | 3/4" Vacuum Breaker Rebuild Kit                                    |
| RK-7C                   | RK5             | RK-7C           | 1" Vacuum Breaker Rebuild Kit                                      |
| SBA                     | BHR-M           | -               | Brass, 1/2" FIPT Inlet, Accepts "B" Series Nozzles                 |
| SF                      | F15             | SF              | Brass Nozzle-15' Radius-Full Spray                                 |
| SH                      | H15             | SH              | Brass Nozzle-15' Radius-Half Spray                                 |
| SK30                    | 30VK            | 30-6            | Manual Valve Key 30" Handle  |
| SK54                    | 54VK            | 30-30           | Manual Valve Key 54" Handle  |
| SK6                     | 7VK             | 30-54           | Manual Valve Key 6" Handle   |
| SPIKEA                  | -               | -               | Metal Step Sprinkler Base, 1/2 "FNPT outlet by 3/4" MHT inlet      |
| SPIKEB                  | -               | -               | Metal Step Sprinkler Base, 1/2 "FNPT outlet by 3/4" FHT& MHT inlet |
| SQ                      | Q15             | SQ              | Brass Nozzle-15' Radius-Quarter Spray                              |
| SS                      | CS              | SS              | Brass Nozzle-4' x 20' Center Strip Spray                           |
| SWEEPNOZ2               | HN-2            | 34              | 2" NPT, Sweeper Nozzle   |
| SWEEPNOZ6               | HN-6            | 35              | 6" NPT, Sweeper Nozzle   |
| TLK                     | QC-LK           | LK              | Key for lock top quick coupling valves & valve markers             |
| TPT                     | -               | -               | Large Pitot Tube   |
| TWISTNOZ3               | -               | -               | 3" NPT, Twist Nozzle   |
| TWISTNOZ4               | HN-4            | -               | 4" NPT, Twist Nozzle   |
| TWISTNOZ7               | HN-7            | -               | 7" NPT, Twist Nozzle   |
| VBH                     | HEVB            | VBH             | Hose Bibb Vacuum Breaker 3/4"                                      |
| WB05                    | -               | -               | 1/2" FIPT outlet x 3/4" FHT swivel Wire Base                       |
| WB07                    | -               | -               | 3/4" FIPT outlet x 3/4" FHT swivel Wire Base                       |



# SMG - Buckner/Superior Limited Trade Warranty

Buckner/Superior warrants to its trade customers that its products will be free from original defects in material and workmanship for a period of time (commencing on the date of original sale to the trade customer) as follows:

#### 3 YEARS for all Buckner/Superior Brass trademarked products, which include:

- Brass/Plastic body valves
- Brass/Plastic automatic adaptors
- Brass quick coupling valves, keys, and hose swivels
- Brass manual angle valves
- Brass above-ground impact sprinklers
- Brass spray nozzles
- Sterling controllers

#### 2 YEARS for all other products.

Note: Solenoids and pressure gauges are warranted for three years.

This warranty applies only to Buckner/Superior products which are installed as specified and used as intended for irrigation purposes. This warranty applies only to cataloged products which have not been altered, converted, damaged, misused, or misapplied. This warranty does not cover products adversely affected by the system into which the products are incorporated, including improperly designed, installed, operated, or maintained systems, or systems using water containing corrosive chemicals, electrolytes, sand, dirt, silt, rust, and scale. This warranty does not cover component failures caused by lightning strikes, electrical power surges, or damage caused by freezing environments. Buckner/Superior's liability is limited to the repair and/or replacement at Buckner/Superior's sole discretion, of products which are returned prepaid through the trade customer to the factory and found by Buckner/Superior to be defective, but in no event shall Buckner/Superior's liability exceed the selling price of the product.

Buckner/Superior makes no other warranties, expressed or implied. No representative, agent, or distributor or other persons has the authority to waive, alter, or add to the printed provisions of this warranty, or to make representation of warranty not contained herein. The sole and exclusive remedy against Buckner/Superior is limited to repair or replacement; Buckner/Superior is not liable for consequential, incidental, indirect, or special damages, including but not limited to labor to inspect, remove, or replace products, vegetation loss, costs of substitute equipment or services, property damage, loss of use or loss of profits; nor is Buckner/Superior liable for economic losses, lost profits, consequential damages or damage to property arising out of Buckner/Superior's negligence or based on strict liability in tort.

The user and/or trade customer agrees to the limitations and exclusion of liability of this warranty by purchase or use of Buckner/Superior products.

Some states do not permit the exclusion or limitation of incidental or consequential damages or of implied warranties. Therefore, some of the exclusions or limitations may not apply to you.

Buckner/Superior reserves the right to redesign, alter or modify its products and shall incur no liability if a trade customer's inventory of Buckner/Superior goods becomes obsolete. Alterations, modifications, and redesign of a product shall not be evidence that the previous product design was defective and the user and/or trade customer so agrees by purchase or use of Buckner/Superior products.



## STORM MANUFACTURING GROUP, INC.