



# self-priming cast iron convertible jet pumps



Pressure Gauge (included)



*The ProJet™ HL convertible jet pumps offer a proven cast iron self-priming design available in 1/2 - 1 HP models. The ProJet HL convertible jets utilize built-in regulators offering easier priming and better range of performance from a complete line of shallow well, 4" double pipe, 2" and 3" single pipe jet packages.*

## APPLICATIONS

- **Water systems and sprinkling...** for homes, farms and cottages.

## SPECIFICATIONS

- Body and Seal Plate** – Close-grained cast iron
- Impeller** – High strength Noryl®
- Diffuser** – Reinforced polypropylene with brass wear ring
- Shaft** – One-piece threaded 416 stainless steel
- Base** – Steel, 12 gauge
- Max. Liquid Temperature** – 140°F
- Max. Inlet Pressure** – 50 PSI
- Pressure Switch Pre-Set** – 30-50 PSI
- Suction Ports** – “Suction-over-Drive”
- Pressure Gauge** – 0-100 PSI

## ORDERING INFORMATION

| Catalog Number | HP  | Description   | Pipe Tapping Sizes |       |        | Motor Voltage | Approx. Wt. Lbs. |
|----------------|-----|---------------|--------------------|-------|--------|---------------|------------------|
|                |     |               | Suct.              | Drive | Disch. |               |                  |
| HLC            | 1/2 | Deep Well Jet | 1-1/4"             | 1"    | 1"     | 115/230       | 42               |
| HLD            | 3/4 | Deep Well Jet | 1-1/4"             | 1"    | 1"     | 115/230       | 60               |
| HLE            | 1   | Deep Well Jet | 1-1/4"             | 1"    | 1"     | 115/230       | 65               |

A Jet Package should be ordered with every Series HL Pump.  
**NOTE:** Pumps installed with a PRO-Source™ tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving flow of pump at relief pressure.

Noryl® is registered trademark of General Electric Co. ProJet™ and PRO-Source™ are trademarks of Pentair Water.  
 In order to provide the best products possible, specifications are subject to change.

## PROJET™ HL SERIES

### FEATURES

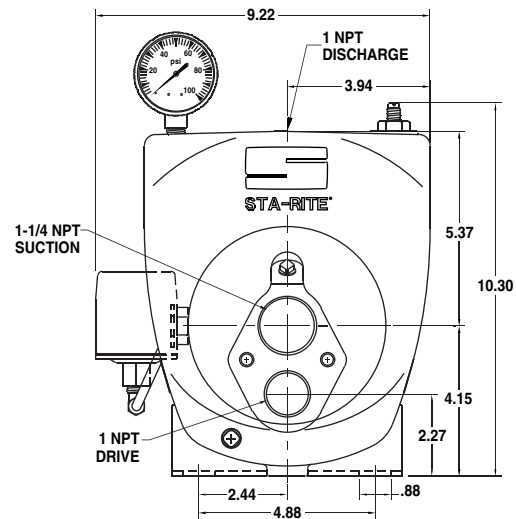
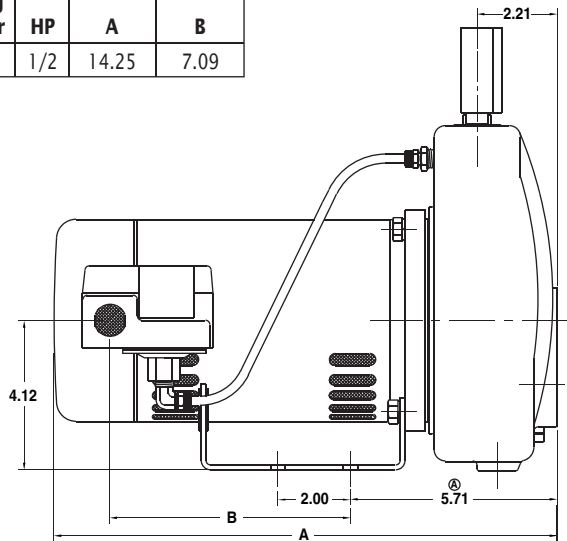
- Quality Construction** – Close-grained cast iron pump body, is rugged one-piece unit, specially treated to resist corrosion. Drain port provided for easy winterizing.
- Noryl® Impeller** – Precision-molded for perfect balance... ultra-smooth for highest performance and efficiency.
- Precision Molded Diffuser** – Pump primes faster, handles more air, with multi-port, precision-molded, reinforced polypropylene diffuser.
- Pressure Switch** – High quality, cut-in and differential pressure setting are adjustable.
- Mechanical Shaft Seal** – Precision lapped and highly polished carbon-ceramic, stainless steel construction. Internal design guarantees continuous water lubrication for maximum protection.
- Motor Windings** – Superior insulation materials protect against excessive moisture and contaminants... assures prolonged motor life.
- Balanced Rotor** – Die cast under high pressures for uniform performance and greater efficiency... dynamically balanced.
- Heavy-duty Ball Bearings** – Shielded, permanently lubricated bearings, extensively tested to ensure extended life and smooth, quiet operation.
- Pump and Motor Shaft** – 416 stainless steel for maximum corrosion resistance; one-piece threaded shaft for positive impeller drive and alignment.

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## OUTLINE DIMENSIONS

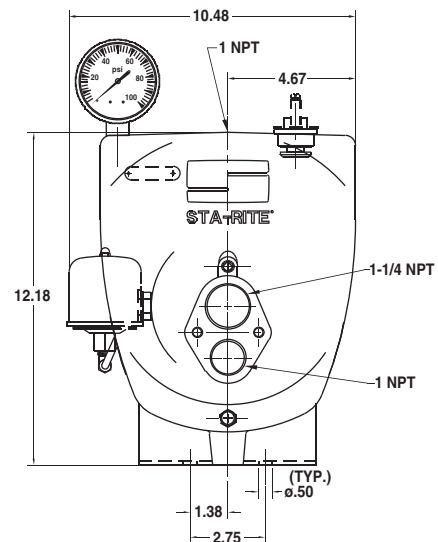
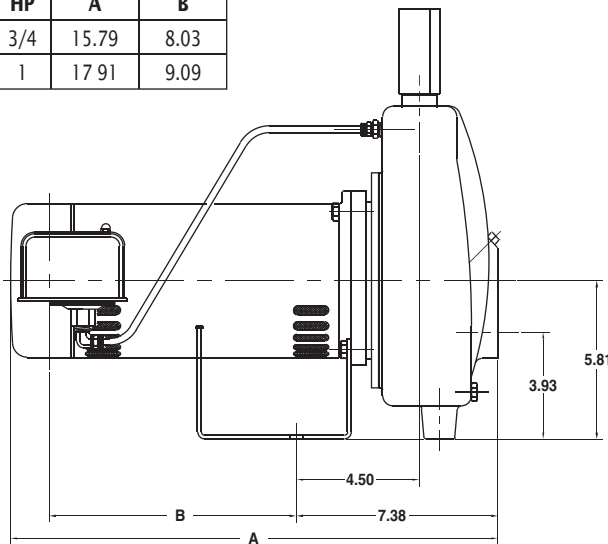
### HLC

| Catalog Number | HP  | A     | B    |
|----------------|-----|-------|------|
| HLC            | 1/2 | 14.25 | 7.09 |



### HLD and HLE

| Catalog Number | HP  | A     | B    |
|----------------|-----|-------|------|
| HLD            | 3/4 | 15.79 | 8.03 |
| HLE            | 1   | 17.91 | 9.09 |



Dimensions (in inches) are for estimating purposes only.

**NOTE:** 1/4 NPT, 0-100 PSI pressure gauge supplied uninstalled to prevent shipping damage.



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## PUMP PERFORMANCE (Capacity in Gallons Per Minute) SHALLOW WELL – 5', 10', 15', 20', AND 25' PUMPING DEPTHS

| Cat. No.     | HP  | Disch. Press. | Pumping Depth to Water in Feet |      |      |      |     |             |      |      |      |     |             |      |      |      |     |             |      |      |      |     |             |      |      |      |     |
|--------------|-----|---------------|--------------------------------|------|------|------|-----|-------------|------|------|------|-----|-------------|------|------|------|-----|-------------|------|------|------|-----|-------------|------|------|------|-----|
|              |     |               | 5 Ft. lift                     |      |      |      |     | 10 ft. lift |      |      |      |     | 15 ft. lift |      |      |      |     | 20 ft. lift |      |      |      |     | 25 ft. lift |      |      |      |     |
|              |     |               | 11SD                           | 10SD | 29SD | CK5  |     | 11SD        | 10SD | 29SD | CK5  |     | 11SD        | 10SD | 29SD | CK5  |     | 11SD        | 10SD | 29SD | CK5  |     | 11SD        | 10SD | 29SD | CK5  |     |
| HLC          | 1/2 | Jet Package   | 11SD                           | 10SD | 29SD | CK5  |     | 11SD        | 10SD | 29SD | CK5  |     | 11SD        | 10SD | 29SD | CK5  |     | 11SD        | 10SD | 29SD | CK5  |     | 11SD        | 10SD | 29SD | CK5  |     |
|              |     | Venturi N32P_ | -68B                           | -67B | -66B | -66B |     | -68B        | -67B | -66B | -66B |     | -68B        | -67B | -66B | -66B |     | -68B        | -67B | -66B | -66B |     | -68B        | -67B | -66B | -66B |     |
|              |     | Nozzle J43P_  | 44                             | 44   | 41   | -45  |     | -44         | -44  | 41   | -45  |     | -44         | 44   | 41   | -45  |     | 44          | 44   | 41   | -45  |     | -44         | 44   | -41  | -45  |     |
|              |     | 20 PSI        | 20.6                           | 14.4 | 10.1 | 6.6  |     | 19.0        | 13.2 | 9.3  | 6.1  |     | 16.5        | 11.5 | 8.1  | 5.3  |     | 13.3        | 9.5  | 6.9  | 4.5  |     | 9.8         | 6.9  | 5.3  | 3.4  |     |
|              |     | 30 PSI        | 19.6                           | 14.3 | 9.9  | 6.5  |     | 18.1        | 13.1 | 9.1  | 6.0  |     | 15.7        | 11.4 | 7.9  | 5.2  |     | 13.3        | 9.5  | 6.7  | 4.4  |     | 9.8         | 6.9  | 5.1  | 3.4  |     |
|              |     | 40 PSI        | 10.3                           | 12.1 | 9.8  | 6.4  |     | 9.4         | 11.2 | 9.0  | 5.9  |     | 8.2         | 9.7  | 7.8  | 5.1  |     | 6.4         | 8.3  | 6.6  | 4.3  |     | 3.1         | 6.3  | 5.1  | 3.3  |     |
|              |     | 50 PSI        |                                | 4.6  | 7.3  | 6.3  |     |             | 4.3  | 6.7  | 5.8  |     |             | 3.7  | 5.8  | 5.0  |     |             | 2.6  | 4.9  | 4.3  |     |             | 1.0  | 3.8  | 3.3  |     |
|              |     | 60 PSI        |                                |      | 3.5  | 5.8  |     |             |      | 3.2  | 5.3  |     |             |      | 2.8  | 4.6  |     |             |      | 2.4  | 3.9  |     |             |      |      | 3.0  |     |
| Shut-Off-PSI | 55  | 59            | 70                             | 72   |      | 53   | 57  | 66          | 67   |      | 50   | 55  | 64          | 65   |      | 48   | 53  | 61          | 63   |      | 46   | 51  | 59          | 61   |      |      |     |
| HLD          | 3/4 | Jet Package   | 12SD                           | 11SD | CK1  | CK5  | CK1 | 12SD        | 11SD | CK1  | CK5  | CK1 | 12SD        | 11SD | CK1  | CK5  | CK1 | 12SD        | 11SD | CK1  | CK5  | CK1 | 12SD        | 11SD | CK1  | CK5  | CK1 |
|              |     | Venturi N32P_ | -65                            | -68B | -72E | -67B | -72 | -65         | -68B | -72E | -67B | -72 | -65         | -68B | -72E | -67B | -72 | -65         | -68B | -72E | -67B | -72 | -65         | -68B | -72E | -67B | -72 |
|              |     | Nozzle J34P_  | 44                             | 44   | 43   | -45  | 43  | -44         | -44  | 43   | -45  | 43  | -44         | 44   | 43   | 45   | 43  | 44          | 44   | 43   | -45  | -43 | -44         | 44   | -43  | -45  | -43 |
|              |     | 20 PSI        | 24.2                           | 20.3 | 14.5 | 12.6 | 8.6 | 23.2        | 19.4 | 13.9 | 12.1 | 8.3 | 20.2        | 16.9 | 12.1 | 10.5 | 7.2 | 17.7        | 13.6 | 10.3 | 8.2  | 6.1 | 12.5        | 10.4 | 7.9  | 6.2  | 4.7 |
|              |     | 30 PSI        | 24.0                           | 20.3 | 14.4 | 12.4 | 8.5 | 23.0        | 19.4 | 13.8 | 11.8 | 8.2 | 20.0        | 16.9 | 12.0 | 10.3 | 7.1 | 17.7        | 13.6 | 10.2 | 8.0  | 6.0 | 12.5        | 10.4 | 7.8  | 6.0  | 4.6 |
|              |     | 40 PSI        | 16.7                           | 16.4 | 13.7 | 12.2 | 8.3 | 16.0        | 15.8 | 13.1 | 11.7 | 7.9 | 13.9        | 13.7 | 11.4 | 10.2 | 6.9 | 16.0        | 11.5 | 9.7  | 7.8  | 5.9 | 10.3        | 8.3  | 7.4  | 5.8  | 4.5 |
|              |     | 50 PSI        |                                |      | 12.6 | 12.0 | 8.2 |             |      | 12.1 | 11.5 | 7.8 |             |      | 10.5 | 10.0 | 6.8 |             |      | 8.9  | 7.7  | 5.8 |             |      | 6.8  | 5.7  | 4.4 |
|              |     | 60 PSI        |                                |      | 6.0  | 8.2  | 6.1 |             |      | 5.8  | 7.8  | 5.9 |             |      | 5.0  | 6.8  | 5.1 |             |      | 4.3  | 5.8  | 4.3 |             |      | 3.3  | 4.8  | 3.3 |
| 70 PSI       |     |               |                                | 4.2  | 2.9  |      |     |             | 4.0  | 2.8  |      |     |             |      | 3.5  | 2.4  |     |             |      | 2.8  | 2.0  |     |             |      | 2.0  | 1.6  |     |
| Shut-Off-PSI | 61  | 62            | 71                             | 80   | 82   | 59   | 60  | 69          | 78   | 79   | 57   | 58  | 67          | 76   | 77   | 54   | 55  | 65          | 74   | 75   | 52   | 53  | 63          | 72   | 73   |      |     |
| HLE          | 1   | Jet Package   | 12SD                           | CK2  | 60SD |      |     | 12SD        | CK2  | 60SD |      |     | 12SD        | CK2  | 60SD |      |     | 12SD        | CK2  | 60SD |      |     | 12SD        | CK2  | 60SD |      |     |
|              |     | Venturi N32P_ | -65                            | -64  | -64  |      |     | -65         | -64  | -64  |      |     | -65         | -64  | -64  |      |     | -65         | -64  | -64  |      |     | -65         | -64  | -64  |      |     |
|              |     | Nozzle J34P_  | 44                             | 44   | 45   |      |     | -44         | -44  | 45   |      |     | -44         | 44   | 45   |      |     | 44          | 44   | 45   |      |     | -44         | 44   | -45  |      |     |
|              |     | 20 PSI        | 26.8                           | 21.6 | 18.4 |      |     | 24.6        | 19.9 | 16.9 |      |     | 21.4        | 17.3 | 14.7 |      |     | 18.2        | 14.7 | 12.5 |      |     | 13.9        | 11.2 | 9.6  |      |     |
|              |     | 30 PSI        | 26.5                           | 21.5 | 18.1 |      |     | 24.4        | 19.8 | 16.7 |      |     | 21.2        | 17.2 | 14.5 |      |     | 18.0        | 14.6 | 12.3 |      |     | 13.8        | 11.2 | 9.4  |      |     |
|              |     | 40 PSI        | 22.9                           | 21.3 | 17.5 |      |     | 21.0        | 19.6 | 16.1 |      |     | 18.3        | 17.0 | 14.0 |      |     | 15.6        | 14.5 | 11.9 |      |     | 11.9        | 11.1 | 9.1  |      |     |
|              |     | 50 PSI        | 15.1                           | 16.8 | 17.3 |      |     | 13.9        | 15.4 | 15.9 |      |     | 12.1        | 13.4 | 13.8 |      |     | 10.3        | 11.4 | 11.7 |      |     | 7.9         | 8.7  | 9.0  |      |     |
|              |     | 60 PSI        |                                | 4.0  | 15.6 |      |     |             | 3.7  | 14.4 |      |     |             | 3.2  | 12.5 |      |     |             | 2.7  | 10.6 |      |     |             | 2.1  | 8.1  |      |     |
| 70 PSI       |     |               | 4.1                            |      |      |      |     | 3.8         |      |      |      |     | 3.3         |      |      |      |     | 2.8         |      |      |      |     |             |      |      |      |     |
| Shut-Off-PSI | 61  | 71            | 77                             |      |      | 59   | 69  | 75          |      |      | 57   | 67  | 73          |      |      | 55   | 65  | 71          |      |      | 53   | 63  | 68          |      |      |      |     |

NOTE: Pumps are supplied with 30 - 50 pressure switch setting. Cut-in / Cut-out pressure settings are adjustable.



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| <b>PUMP PERFORMANCE (Capacity in Gallons Per Minute)</b> |     |          |              |             |                       |      |     |     |     |     |     |     |      |      |      |                               |                   |    |
|--|-----|----------|--------------|-------------|-----------------------|------|-----|-----|-----|-----|-----|-----|------|------|------|-------------------------------|-------------------|----|
| <b>DEEP WELL (40 PSI) 4" DOUBLE PIPE</b>                 |     |          |              |             |                       |      |     |     |     |     |     |     |      |      |      |                               |                   |    |
| Cat. No.   | HP  | Jet. No. | Uses Venturi | Uses Nozzle | Pumping Depth in Feet |      |     |     |     |     |     |     |      |      |      | Max. Pump Shut-Off Press. PSI |                   |    |
|  |     |          |              |             | 20'                   | 30'  | 40' | 50' | 60' | 70' | 80' | 90' | 100' | 110' | 120' | Jet at 20 ft. Depth           | Jet at Max. Depth |    |
| HLC  | 1/2 | CK3      | J32P-26      | J34P-41     | 9.4                   | 8.0  | 6.6 |     |     |     |     |     |      |      |      |                               | 77                | 68 |
|  |     | 54SD     | J32P-22      | J34P-44     | 8.0                   | 6.9  | 5.7 | 4.8 | 3.8 | 3.2 |     |     |      |      |      |                               | 94                | 70 |
|  |     | CK5      | N32P-66B     | J34P-45     | 7.3                   | 6.2  | 5.0 | 4.0 |     |     |     |     |      |      |      |                               | 83                | 69 |
|  |     | 55SD     | J32P-18      | J34P-43     | 5.0                   | 4.3  | 3.7 | 3.2 | 2.6 | 2.2 | 1.8 | 1.5 |      |      |      |                               | 96                | 63 |
| HLD  | 3/4 | CK1      | N32P-72      | J34P-43     | 13.2                  | 10.8 | 8.4 | 6.3 | 4.2 |     |     |     |      |      |      |                               | 74                | 56 |
|  |     | CK2      | J32P-24      | J34P-44     | 13.0                  | 11.5 | 9.9 | 8.7 | 7.5 | 6.6 | 5.4 |     |      |      |      |                               | 105               | 80 |
|  |     | 54SD     | J32P-22      | J34P-44     | 8.5                   | 7.7  | 6.7 | 6.3 | 5.8 | 5.4 | 4.8 | 4.0 | 3.7  | 3.4  | 2.7  |                               | 122               | 73 |
| HLE  | 1   | 54SD     | J32P-22      | J34P-44     | 9.5                   | 8.5  | 7.4 | 6.9 | 6.5 | 6.0 | 5.4 | 4.8 | 4.2  | 3.6  | 2.9  |                               | 127               | 76 |

**NOTE:** Tank body on HLE pump tapped 1-1/4" x 1". On HLE pump drop pipe should be increased to 1-1/2" x 1-1/4" to ensure adequate capacity from pump.

| <b>PUMP PERFORMANCE (Capacity in Gallons Per Minute)</b> |     |          |              |             |                       |      |      |      |     |     |     |     |      |      |      |                               |                   |    |
|--|-----|----------|--------------|-------------|-----------------------|------|------|------|-----|-----|-----|-----|------|------|------|-------------------------------|-------------------|----|
| <b>DEEP WELL (40 PSI) 2" SINGLE PIPE</b>                 |     |          |              |             |                       |      |      |      |     |     |     |     |      |      |      |                               |                   |    |
| Cat. No.   | HP  | Jet. No. | Uses Venturi | Uses Nozzle | Pumping Depth in Feet |      |      |      |     |     |     |     |      |      |      | Max. Pump Shut-Off Press. PSI |                   |    |
|  |     |          |              |             | 20'                   | 30'  | 40'  | 50'  | 60' | 70' | 80' | 90' | 100' | 110' | 120' | Jet at 20 ft. Depth           | Jet at Max. Depth |    |
| HLC  | 1/2 | 54AP     | J32P-22      | J34P-44     | 7.4                   | 6.3  | 5.2  | 3.9  | 2.5 | 2.0 |     |     |      |      |      |                               | 82                | 54 |
| HLD  | 3/4 | 10AP     | J32P-24      | J34P-44     | 10.5                  | 10.0 | 8.1  | 6.2  |     |     |     |     |      |      |      |                               | 96                | 79 |
|  |     | 54AP     | J32P-22      | J34P-44     | 6.0                   | 5.3  | 4.8  | 4.2  | 4.1 | 3.7 | 3.5 | 2.8 | 2.1  | 1.6  |      |                               | 95                | 53 |
| HLE  | 1   | 9AP      | J32P-29      | J34P-44     | 11.7                  | 11.1 | 9.8  | 6.8  |     |     |     |     |      |      |      |                               | 69                | 57 |
|  |     | 8AP      | J32P-18      | J34P-42     | 6.7                   | 5.8  | 5.3  | 4.7  | 4.5 | 4.1 | 3.8 | 3.1 | 2.6  | 2.0  | 1.6  |                               | 129               | 72 |
| <b>DEEP WELL (40 PSI) 3" SINGLE PIPE</b>                 |     |          |              |             |                       |      |      |      |     |     |     |     |      |      |      |                               |                   |    |
| HLC  | 1/2 | 9CP      | J32P-26      | J34P-41     | 9.4                   | 8.0  | 6.6  |      |     |     |     |     |      |      |      |                               | 77                | 68 |
|  |     | 54CP     | J32P-22      | J34P-44     | 8.0                   | 6.9  | 5.7  | 4.8  | 3.8 | 3.2 |     |     |      |      |      |                               | 94                | 70 |
| HLD  | 3/4 | 18CP     | J32P-24      | J34P-44     | 13.0                  | 11.5 | 9.9  | 8.7  | 7.5 | 6.6 | 5.4 |     |      |      |      |                               | 106               | 80 |
|  |     | 54CP     | J32P-22      | J34P-44     | 8.5                   | 7.7  | 6.7  | 6.3  | 5.8 | 5.4 | 4.8 | 4.0 | 3.7  | 3.4  | 2.7  |                               | 122               | 73 |
|  |     | 57CP     | J32P-33      | P122-10B    | 18.0                  | 15.4 | 12.8 | 10.8 |     |     |     |     |      |      |      |                               | 81                | 68 |
|  |     | 54CP     | J32P-22      | J34P-44     | 9.5                   | 8.5  | 7.4  | 6.9  | 6.5 | 6.0 | 5.4 | 4.8 | 4.2  | 3.6  | 2.9  |                               | 127               | 76 |

Tank body on HLE pump tapped 1-1/4" x 1". Drop pipe should be increased to 1-1/2" x 1-1/4" to ensure adequate capacity from pump. Tested and rated in accordance with Water Systems Council Standards.

**NOTE:** Pumps installed with a PRO-Source™ tank require a 100 PSI relief valve. Pumps installed with a conventional tank require a 75 PSI relief valve. Relief valve must be capable of relieving entire flow of pump at relief pressure.

