



## Construction

Close-coupled self-priming shallow well jet pumps with built-in ejector.

NG: version with pump casing and lantern bracket in cast iron.

B-NG: version with pump casing and lantern bracket in bronze (the pumps are supplied fully painted).

## Applications

For drawing water out of a well.

As pressure boosting pump for central water systems with low pressure (follow local specifications if increasing network pressure).

For clean liquids or slightly dirty surface water.

For garden use.

For washing with a jet of water.

## Operating conditions

Liquid temperature up to 40 °C.

Ambient temperature up to 40 °C.

Maximum permissible working pressure up to 10 bar.

Continuous duty.

## Motor

2-pole induction motor, 50 Hz ( $n \approx 2900$  rpm).

NG: three-phase 230/400 V  $\pm 10\%$ .

NGM: single-phase 230 V  $\pm 10\%$ , with thermal protector. Capacitor inside the terminal box.

Insulation class F.

Protection IP 54.

**Classification scheme IE2 for three-phase motors from 0,75 kW.**

Constructed in accordance with: EN 60034-1; EN 60034-30.

EN 60335-1, EN 60335-2-41.

## Special features on request

- Other voltages. - Frequency 60 Hz (as per 60 Hz data sheet).

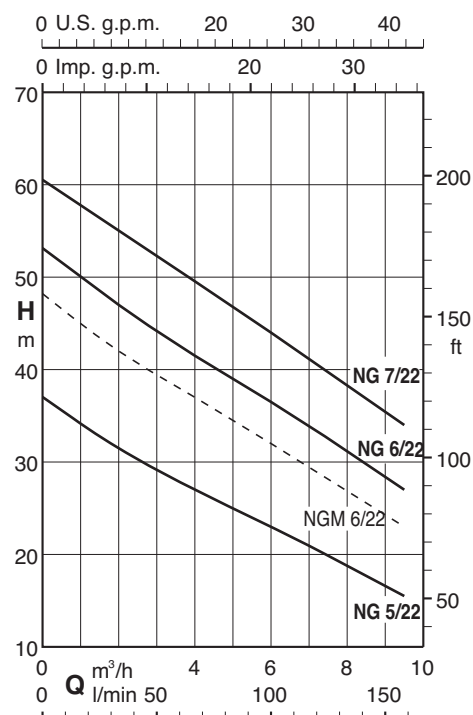
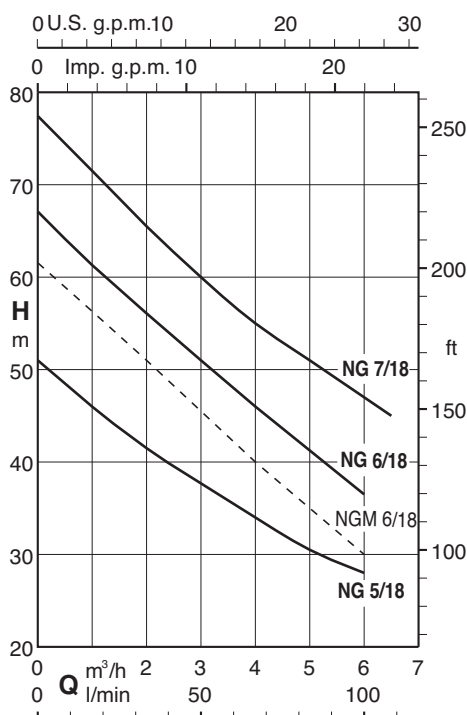
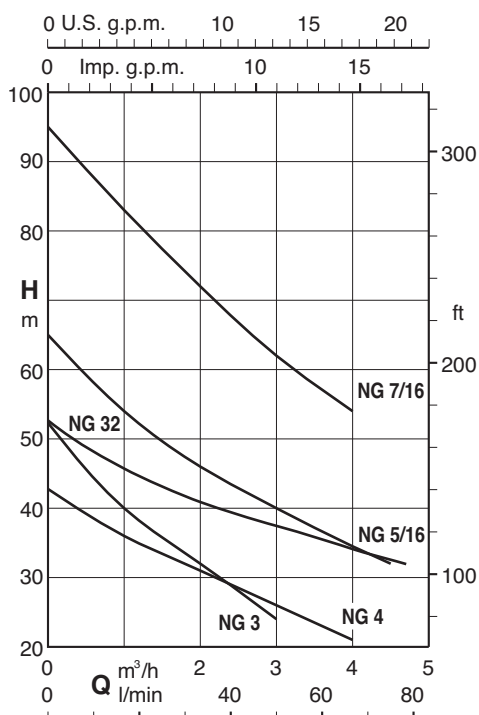
- Protection IP 55.

- Special mechanical seal

## Materials

| Components                 | NG                                                           | B-NG                           |
|----------------------------|--------------------------------------------------------------|--------------------------------|
| Pump casing                | Cast iron                                                    | Bronze                         |
| Cover with lantern bracket | GJL 200 EN 1561                                              | G-Cu Sn 10 EN 1982             |
| Diffuser plate             |                                                              |                                |
| Impeller                   | Brass P- Cu Zn 40 Pb 2 UNI 5705                              |                                |
| Shaft                      | Cr steel 1.4104 EN 10088 (AISI 430) for NG 3-4               | Cr-Ni-Mo steel 1.4401 EN 10088 |
|                            | Cr-Ni steel 1.4305 EN 10088 (AISI 303) for NG 5-6-7-32       | AISI 316                       |
| Ejector casing NG 32       | Cast iron GJL 200 EN 1561                                    | -                              |
| Diffuser                   | PPO-GF20 (Noryl)                                             |                                |
| Nozzle                     | PPO-GF20 (Noryl) (Brass P- Cu Zn 40 Pb 2 UNI 5705 for NG 32) |                                |
| Mechanical seal            | Carbon - Ceramic - NBR                                       |                                |

## Characteristic curves for suction lift $H_s = 1$ m $n \approx 2900$ rpm



## Performance for suction lift Hs = 1 m n ≈ 2900 rpm

| 3 ~ 230V 400V |      |     | 1 ~ 230V P <sub>1</sub> |     |      | P <sub>2</sub> |      | Q<br>m <sup>3</sup> /h<br>l/min | H<br>m |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------|------|-----|-------------------------|-----|------|----------------|------|---------------------------------|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| A             | A    |     | A                       | kW  | kW   | HP             |      |                                 | 0,25   | 0,5  | 1    | 1,5  | 2    | 2,5  | 3    | 3,5  | 4    | 4,5  | 5    | 5,5  | 6    | 6,5  | 7    | 8    | 9    | 9,5  |
| B- NG 3/A     | 3    | 1,7 | B- NGM 3/A              | 4,5 | 0,9  | 0,55           | 0,75 | H<br>m                          | 49     | 45,5 | 40   | 36   | 32   | 28   | 24   |      |      |      |      |      | 100  | 108  | 116  | 133  | 150  | 158  |
| B- NG 4/A     | 3,7  | 2,2 | B- NGM 4/A              | 5,7 | 1    | 0,75           | 1    |                                 | 41     | 39   | 36   | 33   | 31   | 29   | 26   | 24   | 21   |      |      |      |      |      |      |      |      |      |
| NG 32E        | 4,7  | 2,7 | NGM 32E                 | 7,4 | 1,47 | 1,1            | 1,5  |                                 |        | 49   | 46   | 43,5 | 41   | 39   | 38   | 36   | 34   | 33   | 31   |      |      |      |      |      |      |      |
| B- NG 5/16E   | 4,7  | 2,7 | B- NGM 5/16E            | 7,4 | 1,64 | 1,1            | 1,5  |                                 |        | 59   | 54   | 50   | 46   | 43   | 40   | 37   | 34,5 | 32   |      |      |      |      |      |      |      |      |
| B- NG 5/18E   | 4,7  | 2,7 | B- NGM 5/18E            | 7,4 | 1,68 | 1,1            | 1,5  |                                 |        | 48,5 | 46   | 43,5 | 41,5 | 39,5 | 38   | 35,5 | 34   | 32   | 30,5 | 29   | 28   |      |      |      |      |      |
| B- NG 5/22E   | 4,7  | 2,7 | B- NGM 5/22E            | 7,4 | 1,55 | 1,1            | 1,5  |                                 |        | 35,5 | 34,5 | 33   | 31,5 | 30,5 | 29,5 | 28   | 27   | 26   | 25   | 23,5 | 23   | 21,5 | 20,5 | 18,5 | 16,5 | 15,5 |
| B- NG 6/18E   | 7,5  | 4,3 |                         |     |      | 1,5            | 2    |                                 |        | 64,5 | 62   | 59   | 56   | 54   | 51   | 48,5 | 46   | 43,5 | 41,5 | 39   | 36,5 |      |      |      |      |      |
|               |      |     | B- NGM 6/18E            | 9,2 | 2    | 1,5            | 2    |                                 |        | 59   | 57   | 54   | 51   | 48   | 45   | 43   | 40   | 37,5 | 35   | 33   | 30   |      |      |      |      |      |
| B- NG 6/22E   | 7,5  | 4,3 |                         |     |      | 1,5            | 2    |                                 |        | 51,5 | 50   | 48,5 | 47   | 46   | 44,5 | 43   | 41,5 | 40   | 39   | 37,5 | 36,5 | 35   | 33,5 | 31   | 28,5 | 27   |
|               |      |     | B- NGM 6/22E            | 9,2 | 2    | 1,5            | 2    |                                 |        | 47   | 45   | 43,5 | 42   | 41   | 40   | 38   | 37   | 36   | 35   | 33   | 32   | 31   | 30   | 27   | 24   | 23   |
| B- NG 7/16/A  | 9,15 | 5,3 |                         |     |      | 2,2            | 3    |                                 |        | 89   | 83   | 77   | 72   | 67   | 62   | 58   | 54   |      |      |      |      |      |      |      |      |      |
| B- NG 7/18/A  | 9,15 | 5,3 |                         |     |      | 2,2            | 3    |                                 |        | 74,5 | 71,5 | 68,5 | 65,5 | 63   | 60   | 57,5 | 55   | 53   | 51   | 49   | 47   | 45   |      |      |      |      |
| B- NG 7/22/A  | 9,15 | 5,3 |                         |     |      | 2,2            | 3    |                                 |        | 59   | 57,5 | 56,5 | 55   | 54   | 52,5 | 51   | 50   | 48,5 | 47   | 45,5 | 44   | 42,5 | 41,5 | 38   | 35   | 34   |

P<sub>1</sub> Max. power input.

P<sub>2</sub> Rated motor power output.

B-NG, B-NGM = Bronze construction.

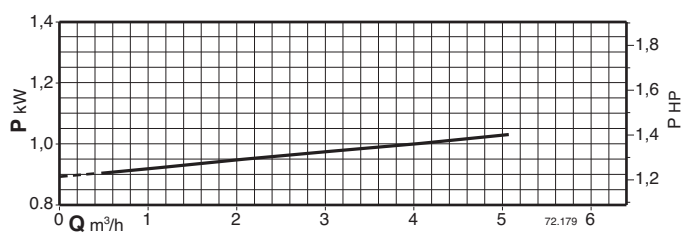
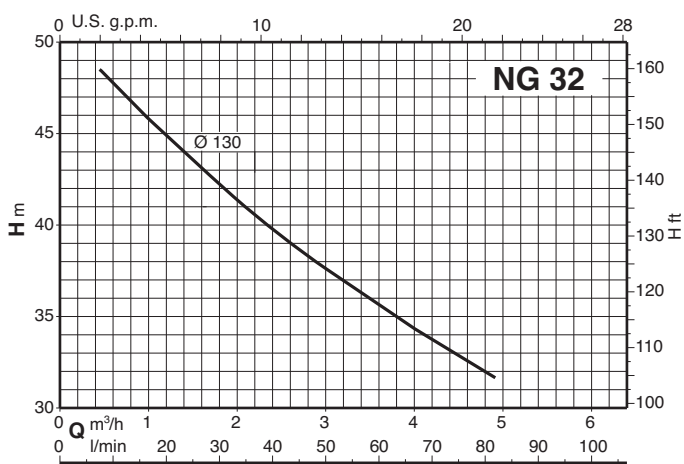
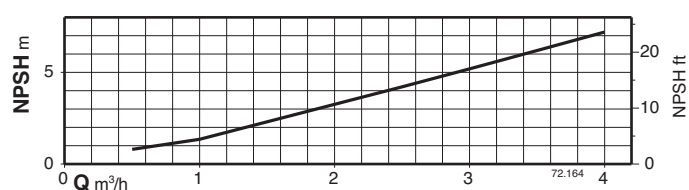
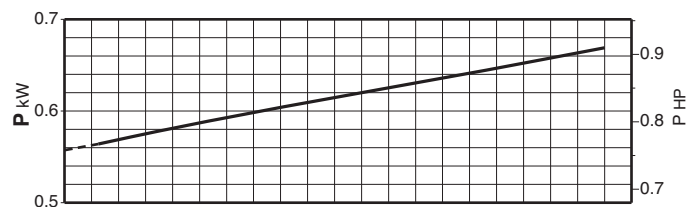
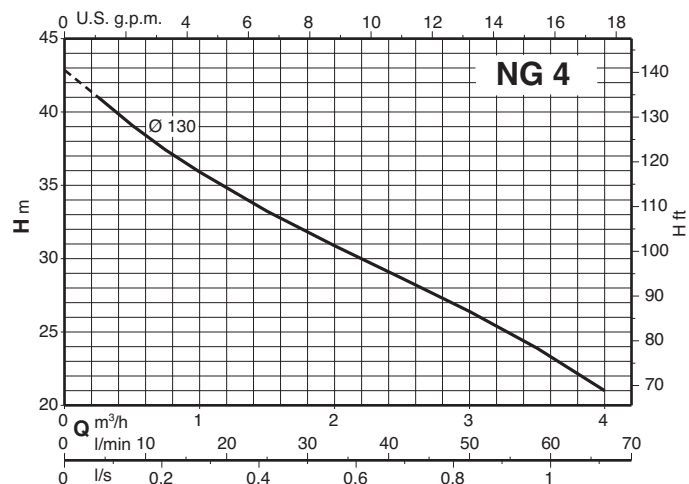
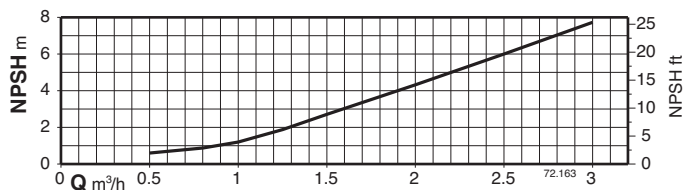
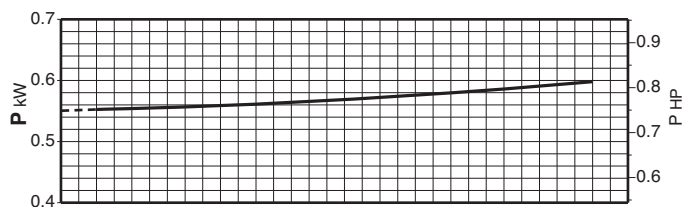
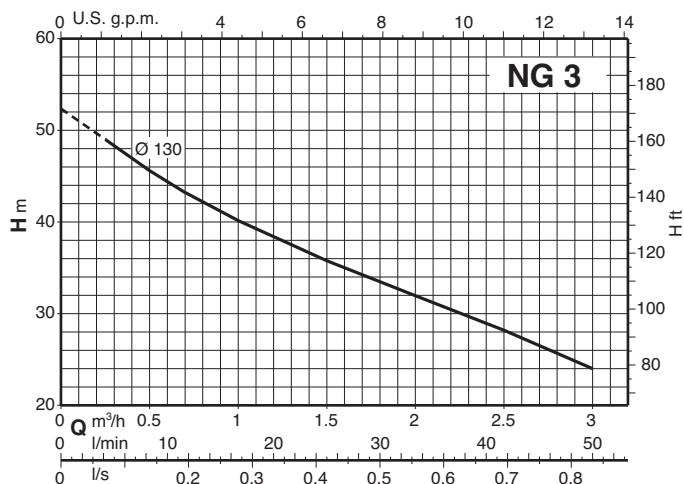
Tolerances according to UNI EN ISO 9906:2012



Self-Priming Pumps



Characteristic curves  $n \approx 2900$  rpm

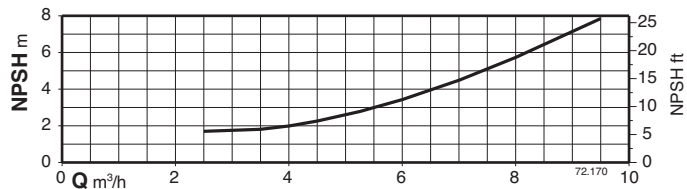
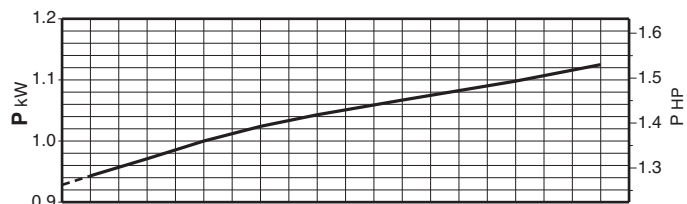
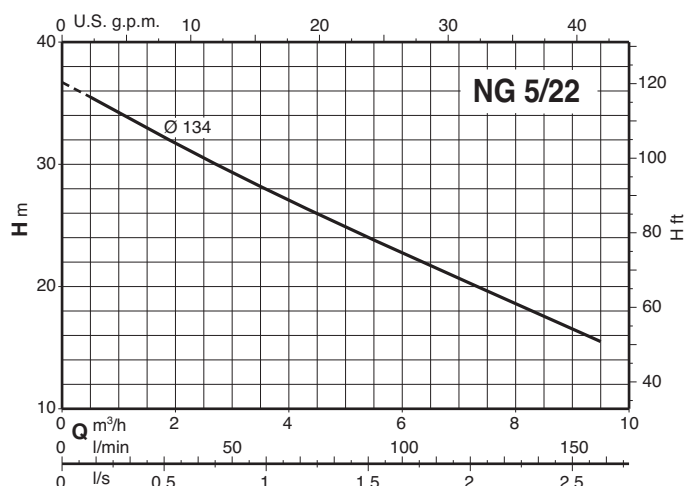
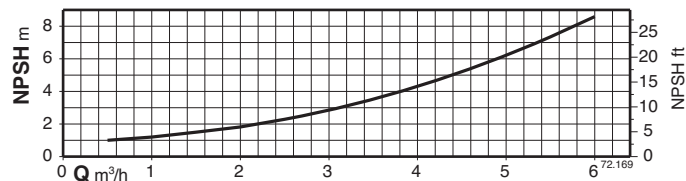
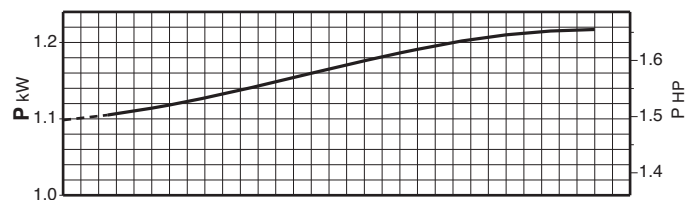
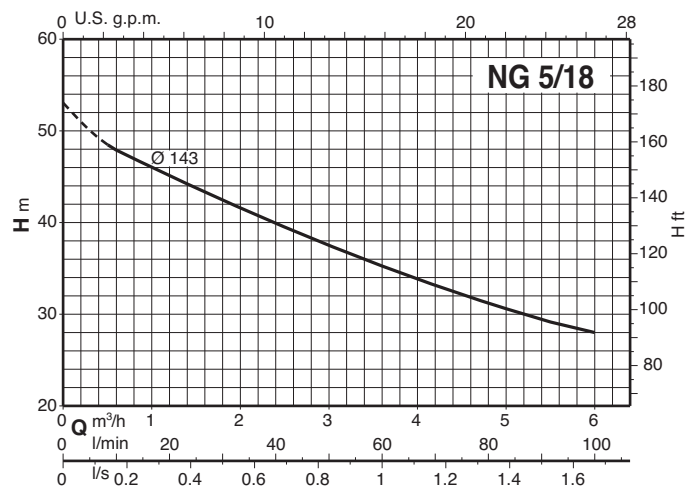
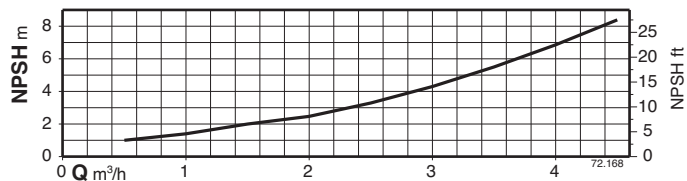
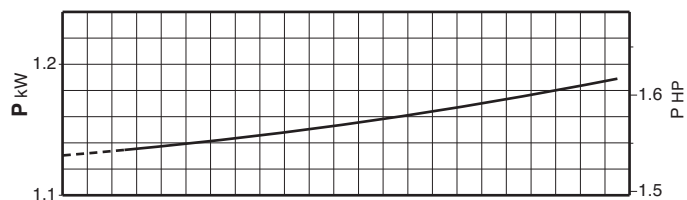
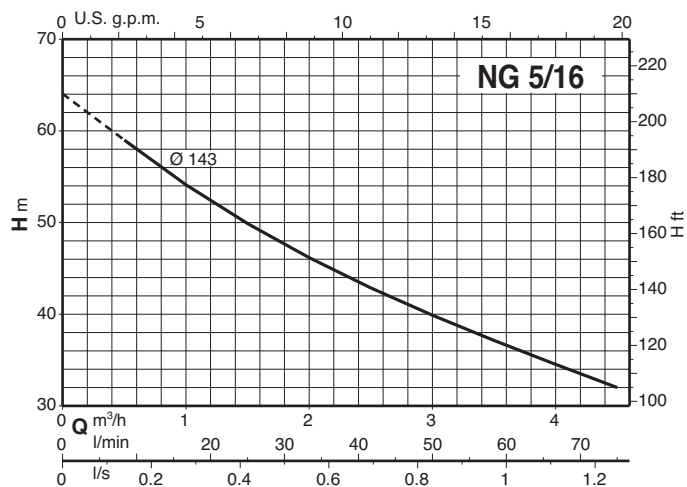




Self-Priming Pumps



Characteristic curves  $n \approx 2900$  rpm

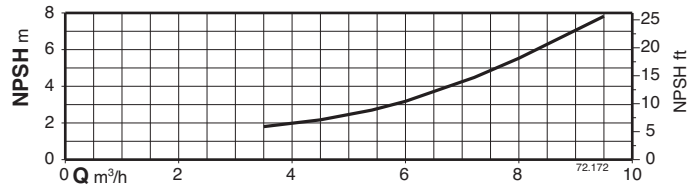
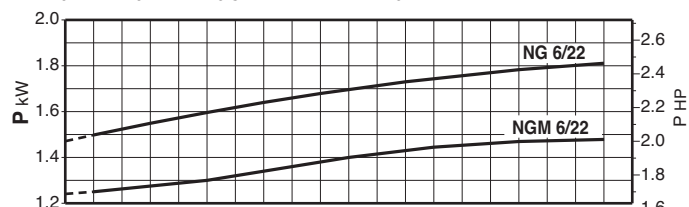
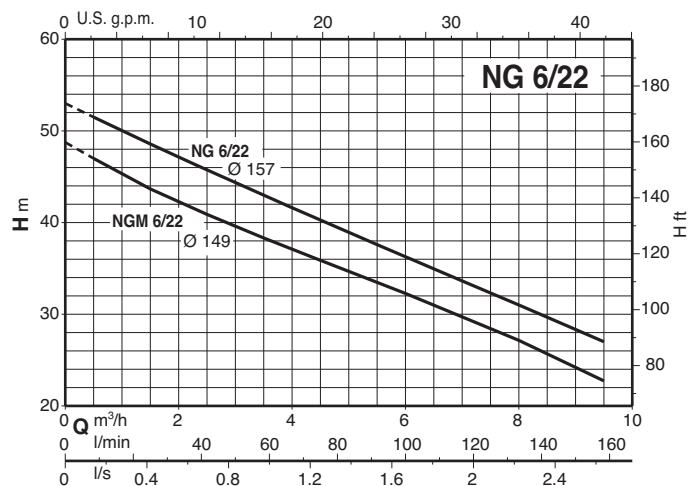
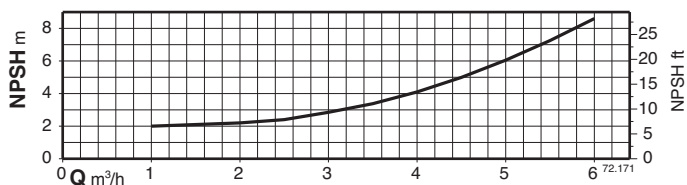
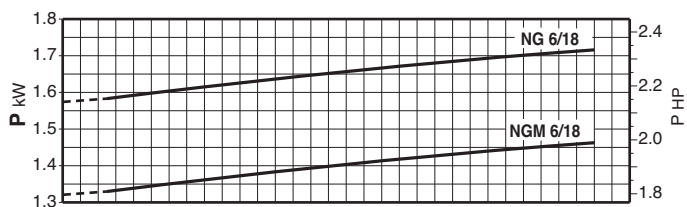
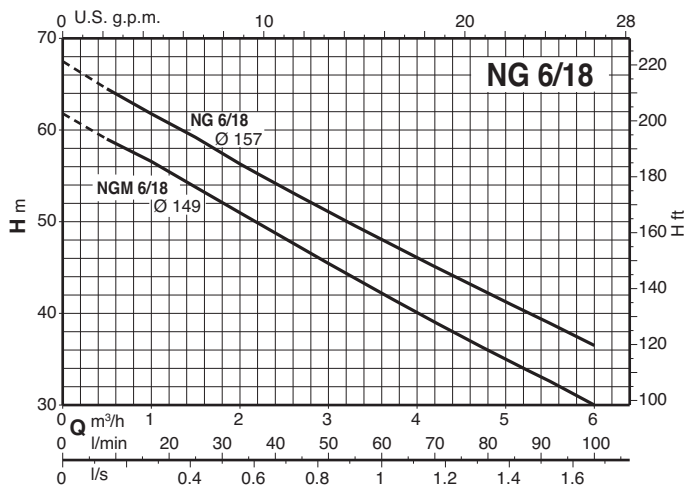




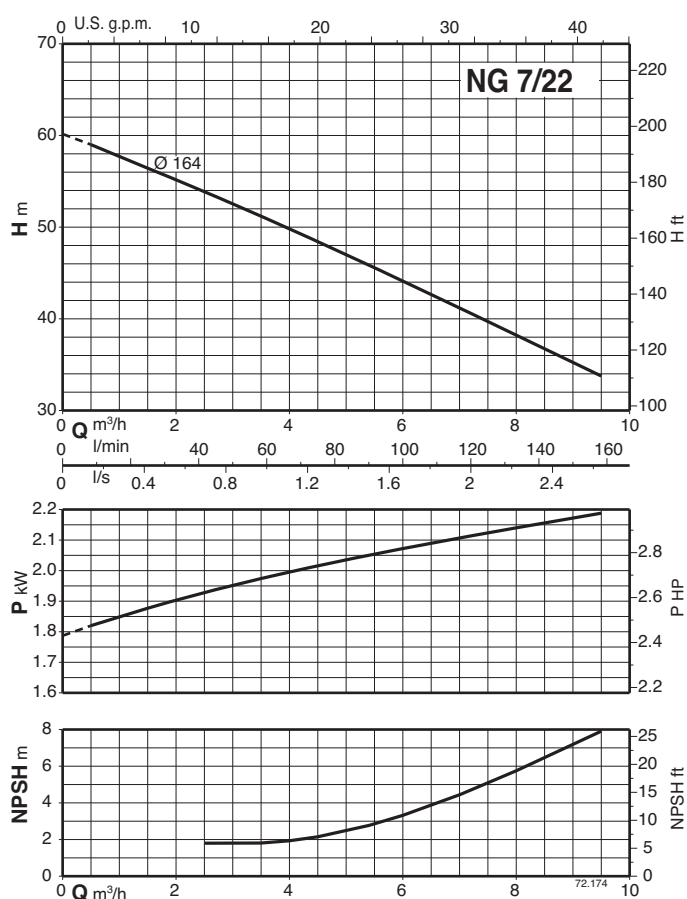
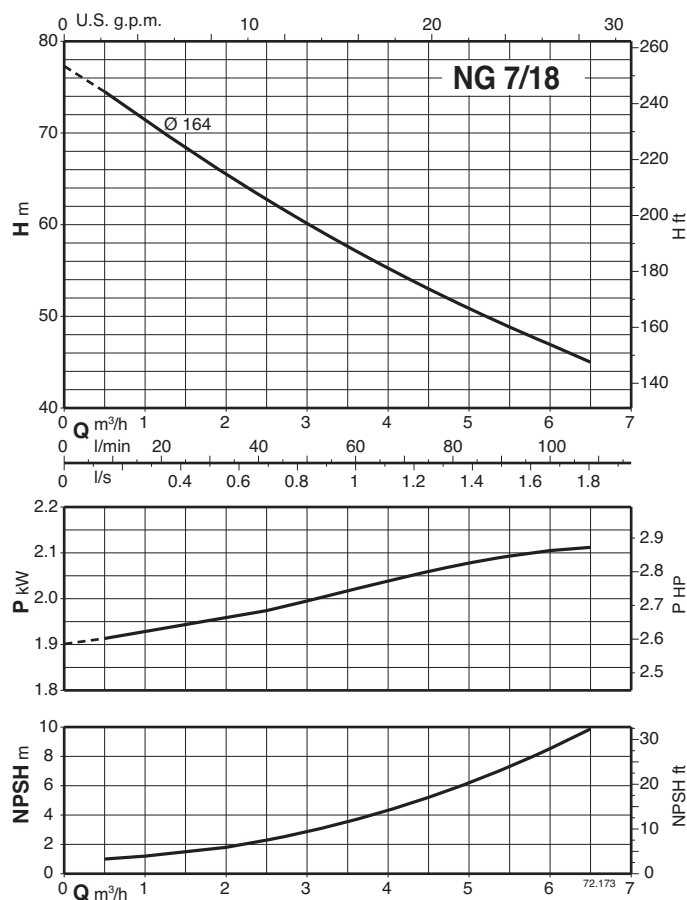
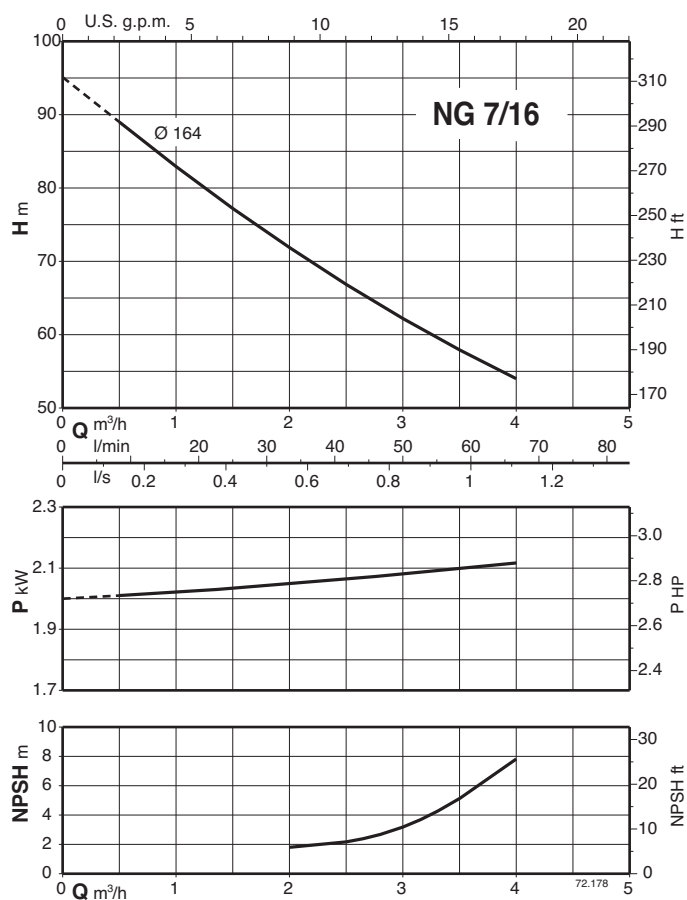
Self-Priming Pumps



Characteristic curves  $n \approx 2900$  rpm

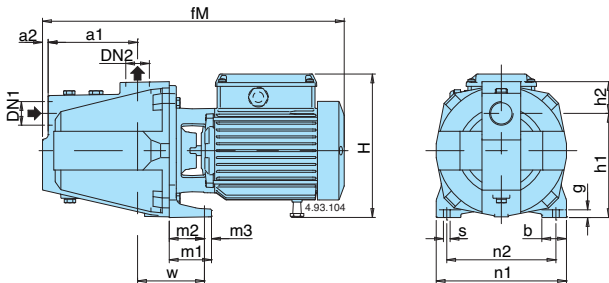


### Characteristic curves $n \approx 2900$ rpm

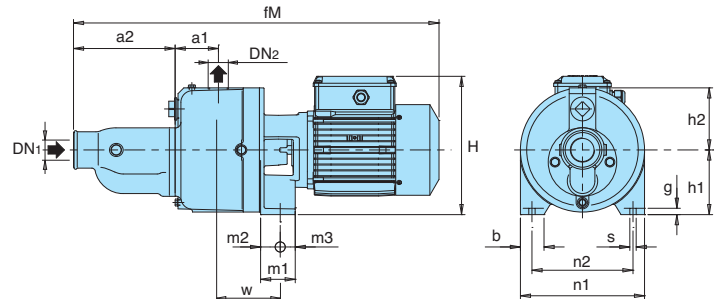


## Dimensions and weights

NG 3/A,4/A,5E,6E,7/A



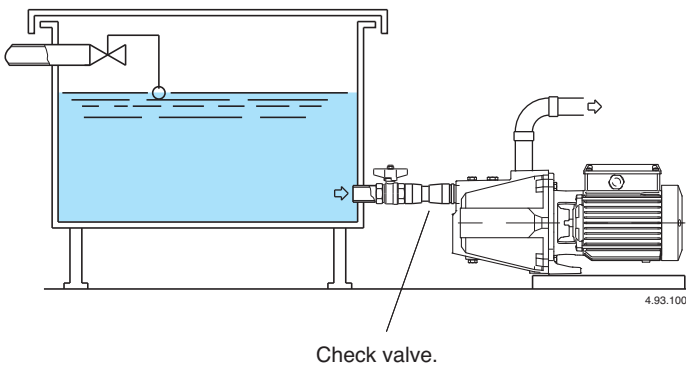
NG 32E



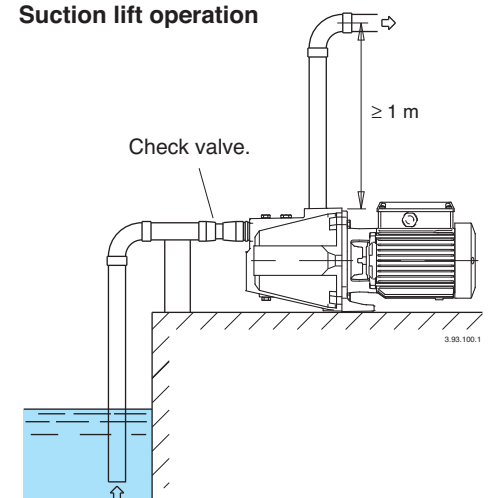
| TYPE                     | DN <sub>1</sub>                | DN <sub>2</sub> | mm  |     |     |                   |     |     |     |    |    |    |     |     |    |      |     | kg |                      |                      |
|--------------------------|--------------------------------|-----------------|-----|-----|-----|-------------------|-----|-----|-----|----|----|----|-----|-----|----|------|-----|----|----------------------|----------------------|
|                          | ISO 228                        |                 | a1  | a2  | fM  | h1                | h2  | H   | m1  | m2 | m3 | n1 | n2  | b   | s  | w    | g   | NG | B-NG                 |                      |
| NG 3/A<br>NG 4/A         | B-NG 3/A<br>B-NG 4/A           | G 1             | G 1 | 127 | 8   | 430               | 150 | 43  | 207 | 60 | 52 | 8  | 185 | 155 | 35 | 9,5  | 100 | 11 | 18,4<br>19,2         | 20,8<br>21,5         |
| NG 5E<br>NG 6E<br>NG 7/A | B-NG 5E<br>B-NG 6E<br>B-NG 7/A | G 1 1/2         | G 1 | 160 | 10  | 560<br>560<br>600 | 165 | 57  | 240 | 60 | 50 | 10 | 215 | 175 | 40 | 11,5 | 115 | 11 | 29,2<br>30,8<br>31,3 | 31,6<br>32,9<br>33,4 |
| NG 32E                   | -                              | G 1 1/2         | G 1 | 75  | 175 | 557               | 112 | 108 | 222 | 60 | 34 | 26 | 215 | 175 | 40 | 11   | 106 | 10 | 38                   | -                    |

## Installation examples

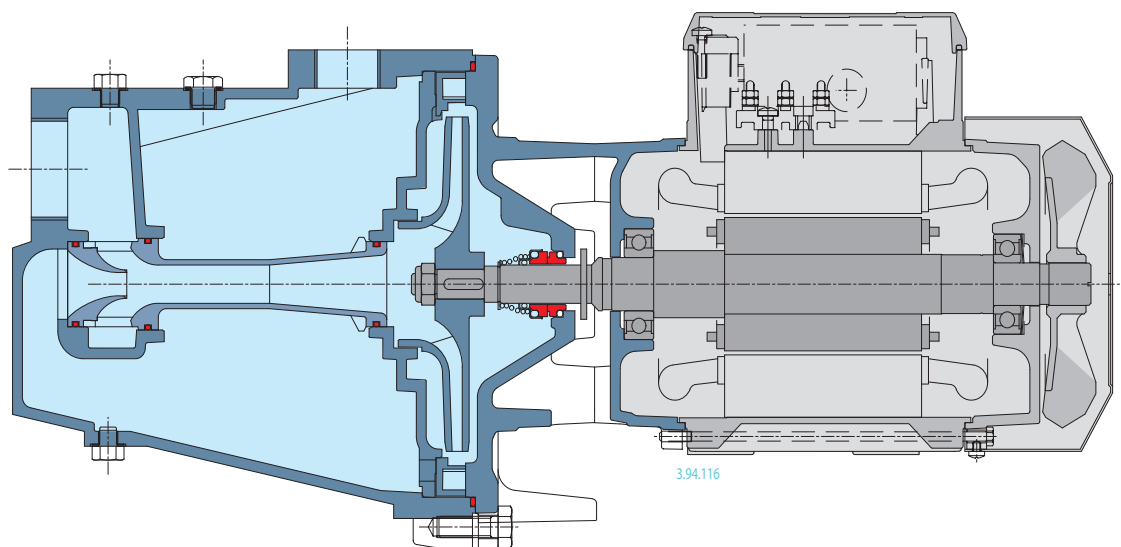
Positive suction head operation



Suction lift operation



### Features



#### Robust

The mechanical structure of the hydraulic parts in contact with the pumped liquid are dimensioned to guarantee the maximum resistance to mechanical stress.

#### Self priming

The hydraulic design allows the pump to self prime even with the high suction lifts or with long suction pipe runs above the water level.

#### Flexible

The option to choose between cast iron and bronze materials for the hydraulic parts in contact with the pumped liquid allows NG series pumps to be selected for use with different types of liquids.