



TECHNICAL DATASHEET

# Cast Iron Hydraulic Ends 6" to 10"

Heavy-duty cast iron hydraulic ends for agricultural and industrial applications.



JOVAL Cast Iron Hydraulic Ends (6" to 10") are multistage centrifugal hydraulic ends built for high performance and mechanical strength. With flow rates up to 400 m<sup>3</sup>/h and head up to 398 m, they are designed for deep borehole water extraction, large-area irrigation and demanding industrial processes. Built with GG25 cast iron bodies and impellers and AISI 304 stainless steel internal components, ensuring durability in urban, rural and fire-fighting applications.

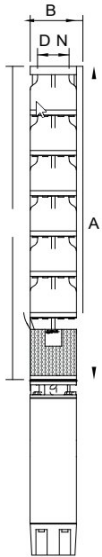
## APPLICATIONS

- Clean water abstraction from deep boreholes, wells, dams and lakes.
- Urban and rural water supply.
- Large-scale agricultural irrigation.
- Fire-fighting systems.
- Industrial processes and pressurization systems.

## TECHNICAL DATA

### TECHNICAL SPECIFICATIONS

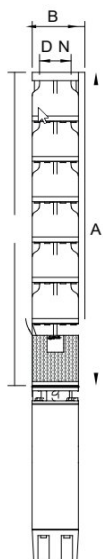
|                              |   |
|------------------------------|---|
| Max Flow                     | Up to 400 m <sup>3</sup> /h a 2850 rpm      |
| Max Head                     | Up to 398 m                                 |
| Discharge                    | 3", 4", 5", 6" conforme o modelo (6" a 10") |
| Standards                    | ISO 9906                                    |
| Type                         | Multistage centrifugal pump                 |
| Suction and discharge body   | GG25 grey cast iron                         |
| Impeller                     | GG25 grey cast iron                         |
| Shaft, filter and coupling   | Stainless Steel AISI 304 (1.4301)           |
| Valve, cable guard and bolts | Stainless Steel AISI 304 (1.4301)           |
| Wear bushings                | Anti-friction rubber with metallic core     |
| Coupling                     | NEMA standard (1-18-388)                    |
| Efficiency Index (MEI)       | ≥ 0,70                                      |
| Warranty                     | 24 months                                   |



| Model  | DN | Height A (mm) | Height B (mm) | Weight (kg) |
|--------|----|---------------|---------------|-------------|
| 650 02 | 3" | 607,0         | -             | 27,0        |
| 650 03 | 3" | 724,0         | -             | 33,0        |
| 650 04 | 3" | 841,0         | -             | 39,0        |
| 650 05 | 3" | 958,0         | -             | 45,0        |
| 650 06 | 3" | 1.075,0       | -             | 51,0        |
| 650 07 | 3" | 1.192,0       | -             | 57,0        |
| 650 08 | 3" | 1.309,0       | -             | 63,0        |
| 650 09 | 3" | 1.426,0       | -             | 69,0        |
| 650 10 | 3" | 1.543,0       | -             | 75,0        |
| 650 11 | 3" | 1.660,0       | -             | 81,0        |
| 650 12 | 3" | 1.777,0       | -             | 87,0        |
| 650 13 | 3" | 1.894,0       | -             | 93,0        |
| 650 14 | 3" | 2.011,0       | -             | 99,0        |
| 650 15 | 3" | 2.128,0       | -             | 105,0       |
| 650 16 | 3" | 2.245,0       | -             | 111,0       |
| 650 17 | 3" | 2.362,0       | -             | 117,0       |
| 650 18 | 3" | 2.479,0       | -             | 122,0       |
| 650 19 | 3" | 2.596,0       | -             | 128,0       |
| 650 20 | 3" | 2.713,0       | -             | 134,0       |
| 650 21 | 3" | 2.830,0       | -             | 140,0       |
| 650 22 | 3" | 2.947,0       | -             | 146,0       |
| 650 23 | 3" | 3.050,0       | -             | 152,0       |
| 650 24 | 3" | 3.167,0       | -             | 158,0       |
| 650 25 | 3" | 3.284,0       | -             | 164,0       |

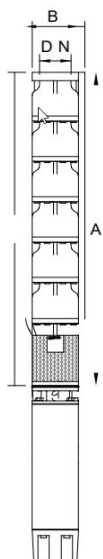
## DIMENSÕES

## DIMENSÕES



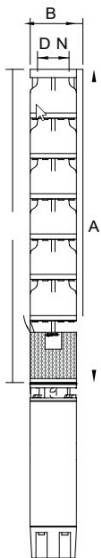
| Model   | DN | Height A (mm) | Height B (mm) | Weight (kg) |
|---------|----|---------------|---------------|-------------|
| 660 02R | 3" | 607,0         | -             | 27,0        |
| 660 03R | 3" | 724,0         | -             | 33,0        |
| 660 04R | 3" | 841,0         | -             | 39,0        |
| 660 05R | 3" | 958,0         | -             | 45,0        |
| 660 06R | 3" | 1.075,0       | -             | 51,0        |
| 660 07R | 3" | 1.192,0       | -             | 57,0        |
| 660 08R | 3" | 1.309,0       | -             | 63,0        |
| 660 09  | 3" | 1.426,0       | -             | 69,0        |
| 660 10R | 3" | 1.543,0       | -             | 75,0        |
| 660 11  | 3" | 1.660,0       | -             | 81,0        |
| 660 12  | 3" | 1.777,0       | -             | 87,0        |
| 660 13  | 3" | 1.894,0       | -             | 93,0        |
| 660 14  | 3" | 2.011,0       | -             | 99,0        |
| 660 15  | 3" | 2.128,0       | -             | 105,0       |
| 660 16  | 3" | 2.245,0       | -             | 111,0       |
| 660 17  | 3" | 2.362,0       | -             | 117,0       |
| 660 18  | 3" | 2.479,0       | -             | 122,0       |
| 660 19  | 3" | 2.596,0       | -             | 128,0       |
| 660 20  | 3" | 2.713,0       | -             | 134,0       |
| 660 21  | 3" | 2.830,0       | -             | 140,0       |
| 660 22  | 3" | 2.947,0       | -             | 146,0       |

## DIMENSÕES



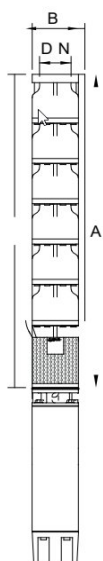
| Model  | DN | Height A (mm) | Height B (mm) | Weight (kg) |
|--------|----|---------------|---------------|-------------|
| 665 02 | 3" | 607,0         | -             | 27,0        |
| 665 03 | 3" | 724,0         | -             | 33,0        |
| 665 04 | 3" | 841,0         | -             | 39,0        |
| 665 05 | 3" | 958,0         | -             | 45,0        |
| 665 06 | 3" | 1.075,0       | -             | 51,0        |
| 665 07 | 3" | 1.192,0       | -             | 57,0        |
| 665 08 | 3" | 1.309,0       | -             | 63,0        |
| 665 09 | 3" | 1.426,0       | -             | 69,0        |
| 665 10 | 3" | 1.543,0       | -             | 75,0        |
| 665 11 | 3" | 1.660,0       | -             | 81,0        |
| 665 12 | 3" | 1.777,0       | -             | 87,0        |
| 665 13 | 3" | 1.894,0       | -             | 93,0        |
| 665 14 | 3" | 2.011,0       | -             | 99,0        |
| 665 15 | 3" | 2.128,0       | -             | 105,0       |
| 665 16 | 3" | 2.245,0       | -             | 111,0       |
| 665 17 | 3" | 2.362,0       | -             | 117,0       |
| 665 18 | 3" | 2.479,0       | -             | 122,0       |
| 665 19 | 3" | 2.596,0       | -             | 128,0       |
| 665 20 | 3" | 2.713,0       | -             | 134,0       |
| 665 21 | 3" | 2.830,0       | -             | 140,0       |

## DIMENSÕES



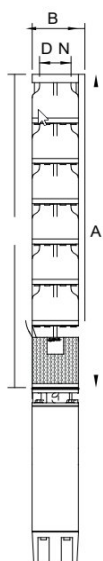
| Model  | DN | Height A (mm) | Height B (mm) | Weight (kg) |
|--------|----|---------------|---------------|-------------|
| 675 01 | 4" | 490,0         | -             | 21,0        |
| 675 02 | 4" | 607,0         | -             | 27,0        |
| 675 03 | 4" | 724,0         | -             | 33,0        |
| 675 04 | 4" | 841,0         | -             | 39,0        |
| 675 05 | 4" | 958,0         | -             | 45,0        |
| 675 06 | 4" | 1.075,0       | -             | 51,0        |
| 675 07 | 4" | 1.192,0       | -             | 57,0        |
| 675 08 | 4" | 1.309,0       | -             | 63,0        |
| 675 09 | 4" | 1.426,0       | -             | 69,0        |
| 675 10 | 4" | 1.543,0       | -             | 75,0        |
| 675 11 | 4" | 1.660,0       | -             | 81,0        |
| 675 12 | 4" | 1.777,0       | -             | 87,0        |
| 675 13 | 4" | 1.894,0       | -             | 93,0        |
| 675 14 | 4" | 2.011,0       | -             | 99,0        |
| 675 15 | 4" | 2.128,0       | -             | 105,0       |
| 675 16 | 4" | 2.245,0       | -             | 111,0       |
| 675 17 | 4" | 2.362,0       | -             | 117,0       |
| 675 18 | 4" | 2.479,0       | -             | 122,0       |

## DIMENSÕES



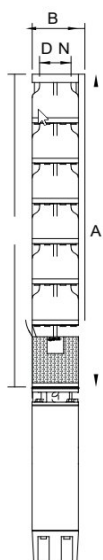
| Model  | DN | Height A (mm) | Height B (mm) | Weight (kg) |
|--------|----|---------------|---------------|-------------|
| 785 01 | 4" | 543,0         | -             | 32,0        |
| 785 02 | 4" | 678,0         | -             | 41,0        |
| 785 03 | 4" | 813,0         | -             | 51,0        |
| 785 04 | 4" | 948,0         | -             | 60,0        |
| 785 05 | 4" | 1.083,0       | -             | 70,0        |
| 785 06 | 4" | 1.218,0       | -             | 79,0        |
| 785 07 | 4" | 1.353,0       | -             | 89,0        |
| 785 08 | 4" | 1.488,0       | -             | 98,0        |
| 785 09 | 4" | 1.623,0       | -             | 108,0       |
| 785 10 | 4" | 1.758,0       | -             | 117,0       |
| 785 11 | 4" | 1.893,0       | -             | 127,0       |
| 785 12 | 4" | 2.028,0       | -             | 136,0       |
| 785 13 | 4" | 2.163,0       | -             | 146,0       |
| 785 14 | 4" | 2.298,0       | -             | 155,0       |
| 785 15 | 4" | 2.433,0       | -             | 165,0       |
| 785 16 | 4" | 2.568,0       | -             | 174,0       |
| 785 17 | 4" | 2.703,0       | -             | 184,0       |
| 785 18 | 4" | 2.838,0       | -             | 193,0       |
| 785 19 | 4" | 2.973,0       | -             | 203,0       |
| 785 20 | 4" | 3.108,0       | -             | 212,0       |
| 785 21 | 4" | 3.243,0       | -             | 222,0       |
| 785 22 | 4" | 3.378,0       | -             | 231,0       |

## DIMENSÕES



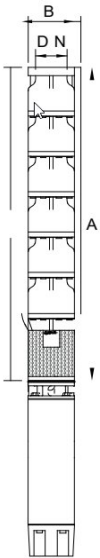
| Model  | DN | Height A (mm) | Height B (mm) | Weight (kg) |
|--------|----|---------------|---------------|-------------|
| 795 01 | 4" | 543,0         | -             | 32,0        |
| 795 02 | 4" | 678,0         | -             | 41,0        |
| 795 03 | 4" | 813,0         | -             | 51,0        |
| 795 04 | 4" | 948,0         | -             | 60,0        |
| 795 05 | 4" | 1.083,0       | -             | 70,0        |
| 795 06 | 4" | 1.218,0       | -             | 79,0        |
| 795 07 | 4" | 1.353,0       | -             | 89,0        |
| 795 08 | 4" | 1.488,0       | -             | 98,0        |
| 795 09 | 4" | 1.623,0       | -             | 108,0       |
| 795 10 | 4" | 1.758,0       | -             | 117,0       |
| 795 11 | 4" | 1.893,0       | -             | 127,0       |
| 795 12 | 4" | 2.028,0       | -             | 136,0       |
| 795 13 | 4" | 2.163,0       | -             | 146,0       |
| 795 14 | 4" | 2.298,0       | -             | 155,0       |
| 795 15 | 4" | 2.433,0       | -             | 165,0       |
| 795 16 | 4" | 2.568,0       | -             | 174,0       |
| 795 17 | 4" | 2.703,0       | -             | 184,0       |
| 795 18 | 4" | 2.838,0       | -             | 193,0       |

## DIMENSÕES



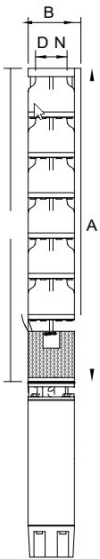
| Model   | DN | Height A (mm) | Height B (mm) | Weight (kg) |
|---------|----|---------------|---------------|-------------|
| 8120 01 | 5" | 560,0         | -             | 37,0        |
| 8120 02 | 5" | 705,0         | -             | 49,0        |
| 8120 03 | 5" | 850,0         | -             | 61,0        |
| 8120 04 | 5" | 995,0         | -             | 74,0        |
| 8120 05 | 5" | 1.140,0       | -             | 86,0        |
| 8120 06 | 5" | 1.285,0       | -             | 98,0        |
| 8120 07 | 5" | 1.430,0       | -             | 110,0       |
| 8120 08 | 5" | 1.575,0       | -             | 122,0       |
| 8120 09 | 5" | 1.720,0       | -             | 135,0       |
| 8120 10 | 5" | 1.865,0       | -             | 147,0       |
| 8120 11 | 5" | 2.010,0       | -             | 159,0       |
| 8120 12 | 5" | 2.155,0       | -             | 171,0       |
| 8120 13 | 5" | 2.300,0       | -             | 184,0       |
| 8120 14 | 5" | 2.445,0       | -             | 196,0       |

## DIMENSÕES



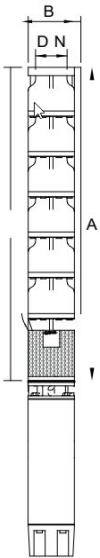
| Model   | DN | Height A (mm) | Height B (mm) | Weight (kg) |
|---------|----|---------------|---------------|-------------|
| 8150 01 | 5" | 560,0         | -             | 37,0        |
| 8150 02 | 5" | 705,0         | -             | 49,0        |
| 8150 03 | 5" | 850,0         | -             | 61,0        |
| 8150 04 | 5" | 995,0         | -             | 74,0        |
| 8150 05 | 5" | 1.140,0       | -             | 86,0        |
| 8150 06 | 5" | 1.285,0       | -             | 98,0        |
| 8150 07 | 5" | 1.430,0       | -             | 110,0       |
| 8150 08 | 5" | 1.575,0       | -             | 122,0       |
| 8150 09 | 5" | 1.720,0       | -             | 135,0       |
| 8150 10 | 5" | 1.865,0       | -             | 147,0       |
| 8150 11 | 5" | 2.010,0       | -             | 159,0       |
| 8150 12 | 5" | 2.155,0       | -             | 171,0       |
| 8150 13 | 5" | 2.300,0       | -             | 184,0       |

## DIMENSÕES



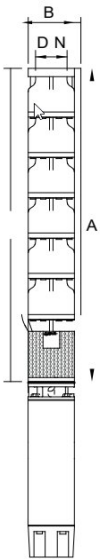
| Model     | DN | Height A (mm) | Height B (mm) | Weight (kg) |
|-----------|----|---------------|---------------|-------------|
| 10200 01D | 6" | 770,0         | -             | 70,0        |
| 10200 01A | 6" | 770,0         | -             | 70,0        |
| 10200 02D | 6" | 950,0         | -             | 92,0        |
| 10200 02C | 6" | 950,0         | -             | 92,0        |
| 10200 03D | 6" | 1.130,0       | -             | 114,0       |
| 10200 03A | 6" | 1.130,0       | -             | 114,0       |
| 10200 04D | 6" | 1.310,0       | -             | 136,0       |
| 10200 04C | 6" | 1.310,0       | -             | 136,0       |
| 10200 04A | 6" | 1.310,0       | -             | 136,0       |
| 10200 05B | 6" | 1.490,0       | -             | 158,0       |
| 10200 06A | 6" | 1.670,0       | -             | 180,0       |
| 10200 07A | 6" | 1.850,0       | -             | 202,0       |
| 10200 08A | 6" | 2.030,0       | -             | 224,0       |

## DIMENSÕES



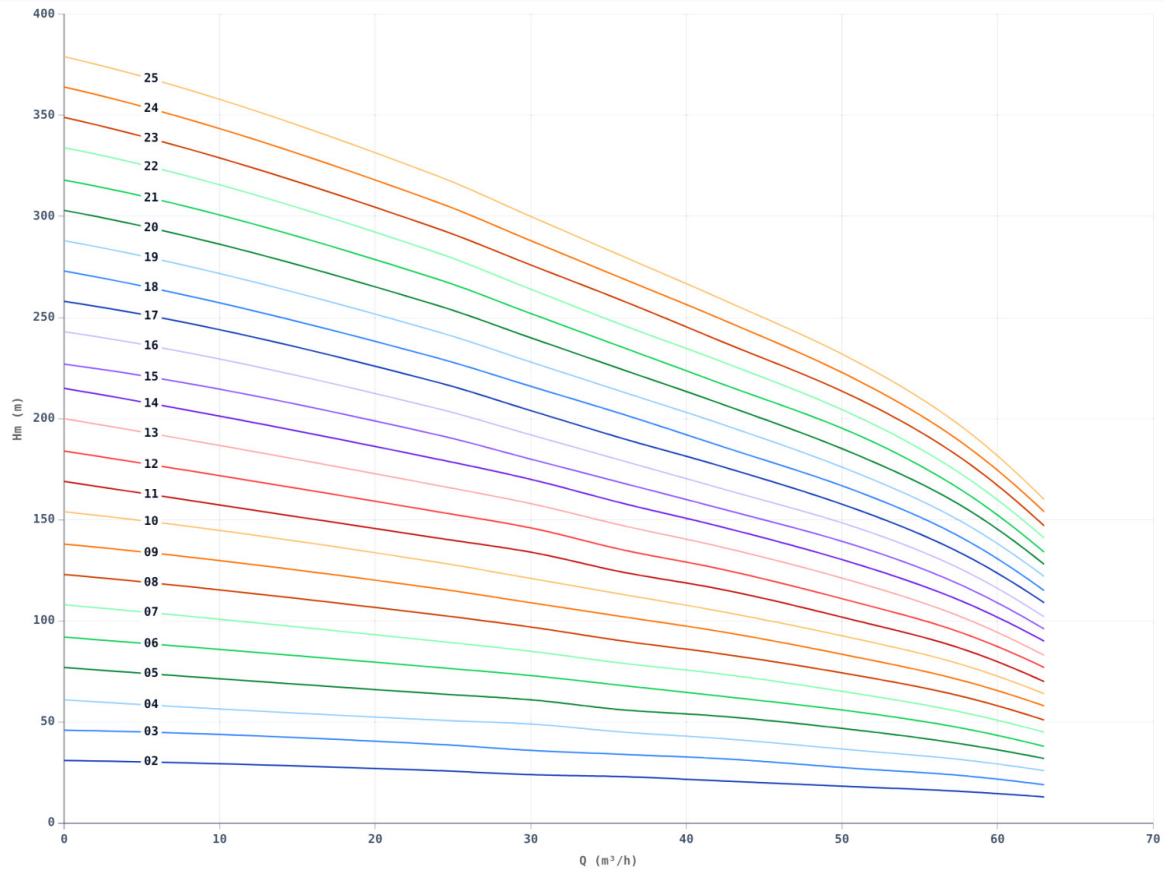
| Model     | DN | Height A (mm) | Height B (mm) | Weight (kg) |
|-----------|----|---------------|---------------|-------------|
| 10270 05A | 6" | 1.490,0       | -             | 158,0       |
| 10270 06B | 6" | 1.670,0       | -             | 180,0       |
| 10270 06A | 6" | 1.670,0       | -             | 180,0       |
| 10270 07A | 6" | 1.850,0       | -             | 202,0       |
| 10270 08A | 6" | 2.030,0       | -             | 224,0       |

## DIMENSÕES



| Model     | DN | Height A (mm) | Height B (mm) | Weight (kg) |
|-----------|----|---------------|---------------|-------------|
| 10300 01E | 6" | 770,0         | -             | 71,0        |
| 10300 01C | 6" | 770,0         | -             | 71,0        |
| 10300 01A | 6" | 770,0         | -             | 71,0        |
| 10300 02D | 6" | 950,0         | -             | 94,0        |
| 10300 02C | 6" | 950,0         | -             | 94,0        |
| 10300 02A | 6" | 950,0         | -             | 94,0        |
| 10300 03E | 6" | 1.130,0       | -             | 117,0       |
| 10300 03D | 6" | 1.130,0       | -             | 117,0       |
| 10300 03B | 6" | 1.130,0       | -             | 117,0       |
| 10300 03A | 6" | 1.130,0       | -             | 117,0       |
| 10300 04C | 6" | 1.275,0       | -             | 129,0       |
| 10300 04A | 6" | 1.275,0       | -             | 129,0       |
| 10300 05B | 6" | 1.420,0       | -             | 141,0       |
| 10300 05A | 6" | 1.420,0       | -             | 141,0       |
| 10300 06B | 6" | 1.565,0       | -             | 153,0       |

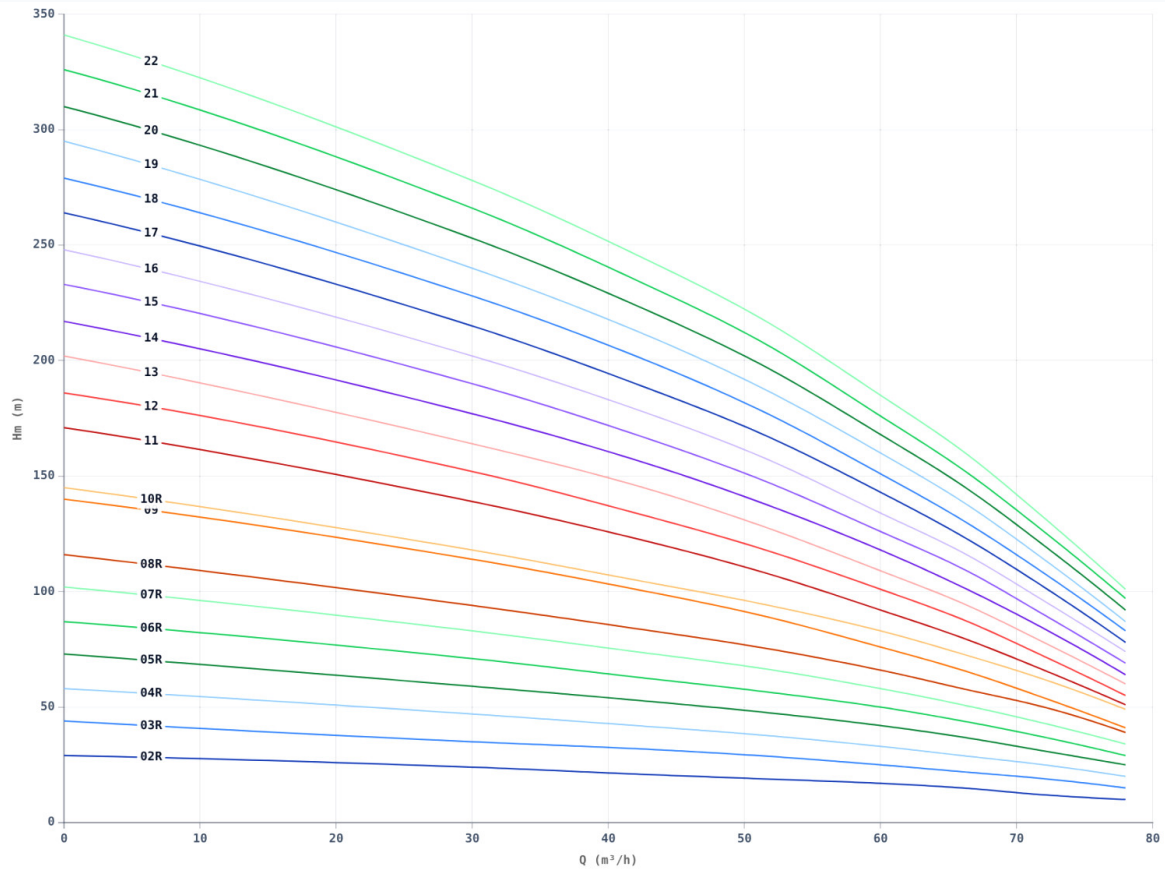
## CURVA DE PERFORMANCE (Q - HM)



Curvas de caudal (Q) vs. altura manométrica (Hm)

| Model  | kW    | HP    | Amperage | m³/h | 0      | 24    | 30    | 36    | 42    | 51    | 57    | 63    |
|--------|-------|-------|----------|------|--------|-------|-------|-------|-------|-------|-------|-------|
|        |       |       |          |      | Hm (m) |       |       |       |       |       |       |       |
| 650 02 | 4,00  | 5,50  | -        |      | 31,0   | 26,0  | 24,0  | 23,0  | 21,0  | 18,0  | 16,0  | 13,0  |
| 650 03 | 5,50  | 7,00  | -        |      | 46,0   | 39,0  | 36,0  | 34,0  | 32,0  | 27,0  | 24,0  | 19,0  |
| 650 04 | 7,50  | 10,00 | -        |      | 61,0   | 51,0  | 49,0  | 45,0  | 42,0  | 36,0  | 32,0  | 26,0  |
| 650 05 | 9,30  | 12,50 | -        |      | 77,0   | 64,0  | 61,0  | 56,0  | 53,0  | 46,0  | 40,0  | 32,0  |
| 650 06 | 11,00 | 15,00 | -        |      | 92,0   | 77,0  | 73,0  | 68,0  | 63,0  | 55,0  | 48,0  | 38,0  |
| 650 07 | 13,00 | 17,50 | -        |      | 108,0  | 90,0  | 85,0  | 79,0  | 74,0  | 64,0  | 56,0  | 45,0  |
| 650 08 | 15,00 | 20,00 | -        |      | 123,0  | 103,0 | 97,0  | 90,0  | 84,0  | 73,0  | 64,0  | 51,0  |
| 650 09 | 18,50 | 25,00 | -        |      | 138,0  | 116,0 | 109,0 | 102,0 | 95,0  | 82,0  | 72,0  | 58,0  |
| 650 10 | 18,50 | 25,00 | -        |      | 154,0  | 129,0 | 121,0 | 113,0 | 105,0 | 91,0  | 80,0  | 64,0  |
| 650 11 | 22,00 | 30,00 | -        |      | 169,0  | 141,0 | 134,0 | 124,0 | 116,0 | 100,0 | 88,0  | 70,0  |
| 650 12 | 22,00 | 30,00 | -        |      | 184,0  | 154,0 | 146,0 | 135,0 | 126,0 | 109,0 | 96,0  | 77,0  |
| 650 13 | 26,00 | 35,00 | -        |      | 200,0  | 167,0 | 158,0 | 147,0 | 137,0 | 119,0 | 104,0 | 83,0  |
| 650 14 | 26,00 | 35,00 | -        |      | 215,0  | 180,0 | 170,0 | 158,0 | 147,0 | 128,0 | 112,0 | 90,0  |
| 650 15 | 30,00 | 40,00 | -        |      | 227,0  | 192,0 | 180,0 | 168,0 | 156,0 | 137,0 | 120,0 | 96,0  |
| 650 16 | 30,00 | 40,00 | -        |      | 243,0  | 205,0 | 192,0 | 179,0 | 166,0 | 146,0 | 128,0 | 102,0 |
| 650 17 | 30,00 | 40,00 | -        |      | 258,0  | 218,0 | 204,0 | 190,0 | 177,0 | 155,0 | 136,0 | 109,0 |
| 650 18 | 37,00 | 50,00 | -        |      | 273,0  | 230,0 | 216,0 | 202,0 | 187,0 | 164,0 | 144,0 | 115,0 |
| 650 19 | 37,00 | 50,00 | -        |      | 288,0  | 243,0 | 228,0 | 213,0 | 198,0 | 173,0 | 152,0 | 122,0 |
| 650 20 | 37,00 | 50,00 | -        |      | 303,0  | 256,0 | 240,0 | 224,0 | 208,0 | 182,0 | 160,0 | 128,0 |
| 650 21 | 37,00 | 50,00 | -        |      | 318,0  | 269,0 | 252,0 | 235,0 | 218,0 | 192,0 | 168,0 | 134,0 |
| 650 22 | 45,00 | 60,00 | -        |      | 334,0  | 282,0 | 264,0 | 246,0 | 229,0 | 201,0 | 176,0 | 141,0 |
| 650 23 | 45,00 | 60,00 | -        |      | 349,0  | 294,0 | 276,0 | 258,0 | 239,0 | 210,0 | 184,0 | 147,0 |
| 650 24 | 45,00 | 60,00 | -        |      | 364,0  | 307,0 | 288,0 | 269,0 | 250,0 | 219,0 | 192,0 | 154,0 |
| 650 25 | 45,00 | 60,00 | -        |      | 379,0  | 320,0 | 300,0 | 280,0 | 260,0 | 228,0 | 200,0 | 160,0 |

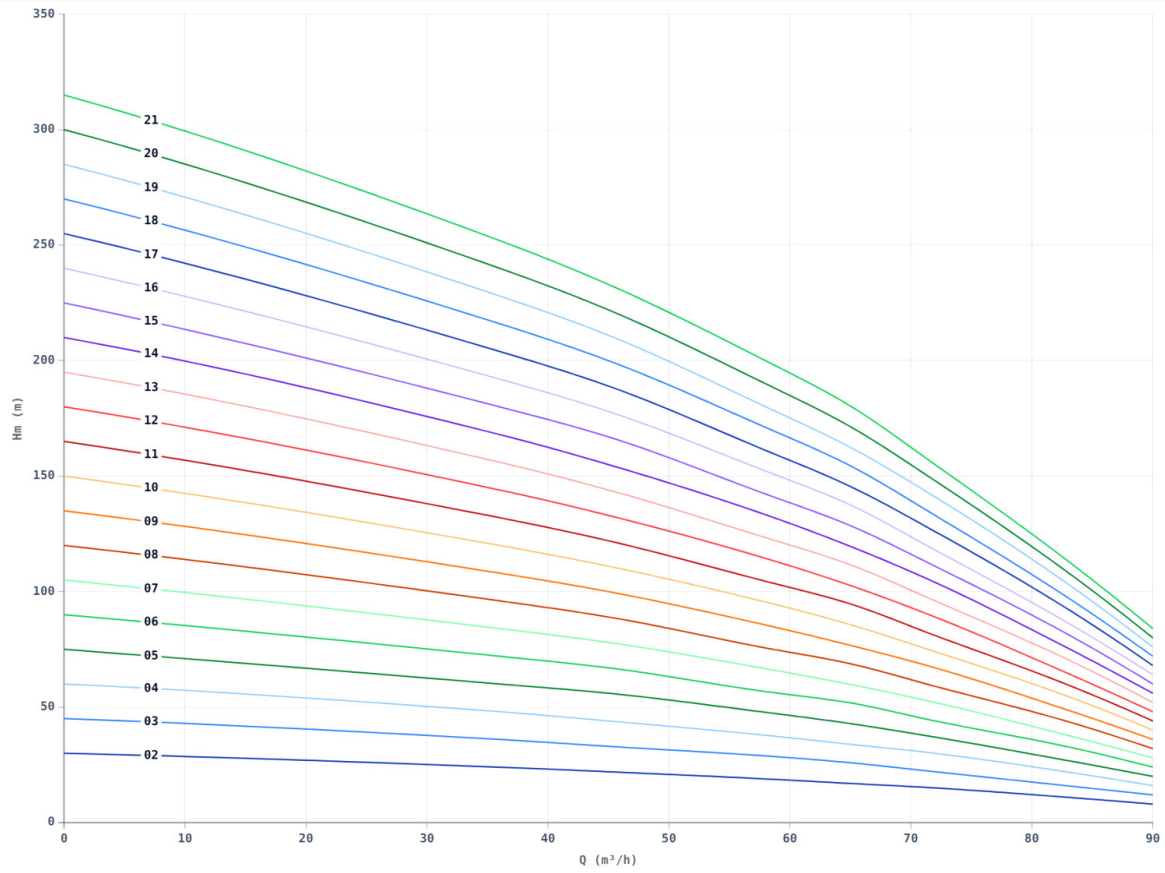
## CURVA DE PERFORMANCE (Q - HM)



Curvas de caudal (Q) vs. altura manométrica (Hm)

| Model   | kW    | HP    | Amperage | m <sup>3</sup> /h | 0      | 30    | 42    | 51    | 60    | 66    | 72    | 78    |
|---------|-------|-------|----------|-------------------|--------|-------|-------|-------|-------|-------|-------|-------|
|         |       |       |          |                   | Hm (m) |       |       |       |       |       |       |       |
| 660 02R | 4,00  | 5,50  | -        |                   | 29,0   | 24,0  | 21,0  | 19,0  | 17,0  | 15,0  | 12,0  | 10,0  |
| 660 03R | 5,50  | 7,00  | -        |                   | 44,0   | 35,0  | 32,0  | 29,0  | 25,0  | 22,0  | 19,0  | 15,0  |
| 660 04R | 7,50  | 10,00 | -        |                   | 58,0   | 47,0  | 42,0  | 38,0  | 33,0  | 29,0  | 25,0  | 20,0  |
| 660 05R | 9,30  | 12,50 | -        |                   | 73,0   | 59,0  | 53,0  | 48,0  | 42,0  | 37,0  | 31,0  | 25,0  |
| 660 06R | 11,00 | 15,00 | -        |                   | 87,0   | 71,0  | 63,0  | 57,0  | 50,0  | 44,0  | 37,0  | 29,0  |
| 660 07R | 13,00 | 17,50 | -        |                   | 102,0  | 83,0  | 74,0  | 67,0  | 58,0  | 51,0  | 43,0  | 34,0  |
| 660 08R | 15,00 | 20,00 | -        |                   | 116,0  | 94,0  | 84,0  | 76,0  | 66,0  | 58,0  | 50,0  | 39,0  |
| 660 09  | 18,50 | 25,00 | -        |                   | 140,0  | 114,0 | 101,0 | 90,0  | 76,0  | 66,0  | 54,0  | 41,0  |
| 660 10R | 18,50 | 25,00 | -        |                   | 145,0  | 118,0 | 105,0 | 95,0  | 83,0  | 73,0  | 62,0  | 49,0  |
| 660 11  | 22,00 | 30,00 | -        |                   | 171,0  | 139,0 | 123,0 | 109,0 | 92,0  | 80,0  | 66,0  | 51,0  |
| 660 12  | 26,50 | 35,00 | -        |                   | 186,0  | 152,0 | 134,0 | 119,0 | 101,0 | 88,0  | 72,0  | 55,0  |
| 660 13  | 26,50 | 35,00 | -        |                   | 202,0  | 164,0 | 146,0 | 129,0 | 109,0 | 95,0  | 78,0  | 60,0  |
| 660 14  | 30,00 | 40,00 | -        |                   | 217,0  | 177,0 | 157,0 | 139,0 | 118,0 | 102,0 | 84,0  | 64,0  |
| 660 15  | 30,00 | 40,00 | -        |                   | 233,0  | 190,0 | 168,0 | 149,0 | 126,0 | 110,0 | 90,0  | 69,0  |
| 660 16  | 37,00 | 50,00 | -        |                   | 248,0  | 202,0 | 179,0 | 159,0 | 134,0 | 117,0 | 96,0  | 74,0  |
| 660 17  | 37,00 | 50,00 | -        |                   | 264,0  | 215,0 | 190,0 | 169,0 | 143,0 | 124,0 | 102,0 | 78,0  |
| 660 18  | 37,00 | 50,00 | -        |                   | 279,0  | 228,0 | 202,0 | 179,0 | 151,0 | 131,0 | 108,0 | 83,0  |
| 660 19  | 37,00 | 50,00 | -        |                   | 295,0  | 240,0 | 213,0 | 189,0 | 160,0 | 139,0 | 114,0 | 87,0  |
| 660 20  | 45,00 | 60,00 | -        |                   | 310,0  | 253,0 | 224,0 | 199,0 | 168,0 | 146,0 | 120,0 | 92,0  |
| 660 21  | 45,00 | 60,00 | -        |                   | 326,0  | 266,0 | 235,0 | 209,0 | 176,0 | 153,0 | 126,0 | 97,0  |
| 660 22  | 45,00 | 60,00 | -        |                   | 341,0  | 278,0 | 246,0 | 219,0 | 185,0 | 161,0 | 132,0 | 101,0 |

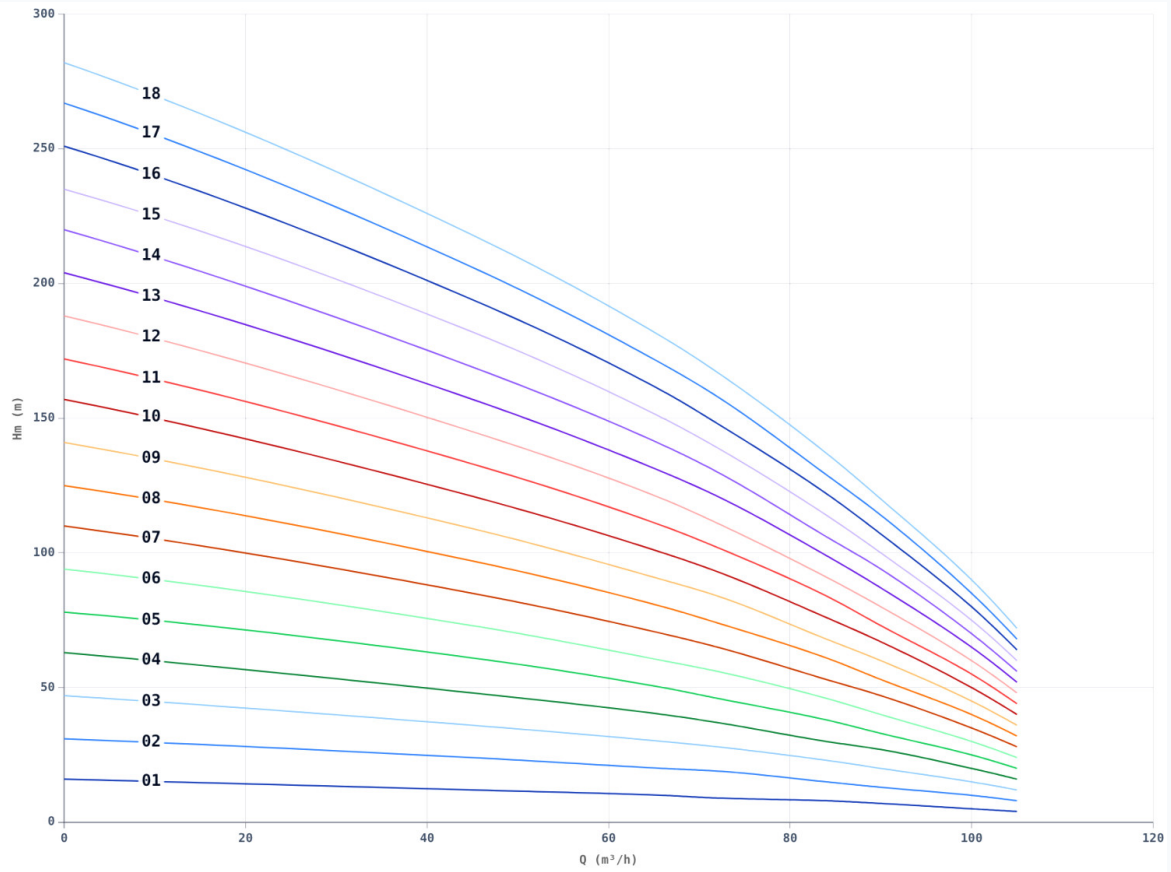
## CURVA DE PERFORMANCE (Q - HM)



Curvas de caudal (Q) vs. altura manométrica (Hm)

| Model  | kW    | HP    | Amperage | m³/h | 0      | 36    | 45    | 57.6  | 64.8  | 72    | 82.8  | 90   |
|--------|-------|-------|----------|------|--------|-------|-------|-------|-------|-------|-------|------|
|        |       |       |          |      | Hm (m) |       |       |       |       |       |       |      |
| 665 02 | 4,00  | 5,50  | -        |      | 30,0   | 24,0  | 22,0  | 19,0  | 17,0  | 15,0  | 11,0  | 8,0  |
| 665 03 | 7,50  | 10,00 | -        |      | 45,0   | 36,0  | 33,0  | 29,0  | 26,0  | 22,0  | 16,0  | 12,0 |
| 665 04 | 9,30  | 12,50 | -        |      | 60,0   | 48,0  | 44,0  | 38,0  | 34,0  | 30,0  | 22,0  | 16,0 |
| 665 05 | 11,00 | 15,00 | -        |      | 75,0   | 60,0  | 56,0  | 48,0  | 43,0  | 37,0  | 27,0  | 20,0 |
| 665 06 | 13,00 | 17,50 | -        |      | 90,0   | 72,0  | 67,0  | 57,0  | 52,0  | 44,0  | 33,0  | 24,0 |
| 665 07 | 15,00 | 20,00 | -        |      | 105,0  | 84,0  | 78,0  | 67,0  | 60,0  | 52,0  | 38,0  | 28,0 |
| 665 08 | 18,50 | 25,00 | -        |      | 120,0  | 96,0  | 89,0  | 76,0  | 69,0  | 59,0  | 44,0  | 32,0 |
| 665 09 | 22,00 | 30,00 | -        |      | 135,0  | 108,0 | 100,0 | 86,0  | 77,0  | 67,0  | 49,0  | 36,0 |
| 665 10 | 26,50 | 35,00 | -        |      | 150,0  | 120,0 | 111,0 | 96,0  | 86,0  | 74,0  | 55,0  | 40,0 |
| 665 11 | 26,50 | 35,00 | -        |      | 165,0  | 132,0 | 122,0 | 105,0 | 95,0  | 81,0  | 60,0  | 44,0 |
| 665 12 | 30,00 | 40,00 | -        |      | 180,0  | 144,0 | 133,0 | 115,0 | 103,0 | 89,0  | 65,0  | 48,0 |
| 665 13 | 30,00 | 40,00 | -        |      | 195,0  | 156,0 | 144,0 | 124,0 | 112,0 | 96,0  | 71,0  | 52,0 |
| 665 14 | 37,00 | 50,00 | -        |      | 210,0  | 168,0 | 155,0 | 134,0 | 120,0 | 104,0 | 76,0  | 56,0 |
| 665 15 | 37,00 | 50,00 | -        |      | 225,0  | 180,0 | 167,0 | 143,0 | 129,0 | 111,0 | 82,0  | 60,0 |
| 665 16 | 37,00 | 50,00 | -        |      | 240,0  | 192,0 | 178,0 | 153,0 | 138,0 | 118,0 | 87,0  | 64,0 |
| 665 17 | 37,00 | 50,00 | -        |      | 255,0  | 204,0 | 189,0 | 162,0 | 146,0 | 126,0 | 93,0  | 68,0 |
| 665 18 | 45,00 | 60,00 | -        |      | 270,0  | 216,0 | 200,0 | 172,0 | 155,0 | 133,0 | 98,0  | 72,0 |
| 665 19 | 45,00 | 60,00 | -        |      | 285,0  | 228,0 | 211,0 | 181,0 | 163,0 | 141,0 | 104,0 | 76,0 |
| 665 20 | 45,00 | 60,00 | -        |      | 300,0  | 240,0 | 222,0 | 191,0 | 172,0 | 148,0 | 109,0 | 80,0 |
| 665 21 | 45,00 | 60,00 | -        |      | 315,0  | 252,0 | 233,0 | 201,0 | 181,0 | 155,0 | 114,0 | 84,0 |

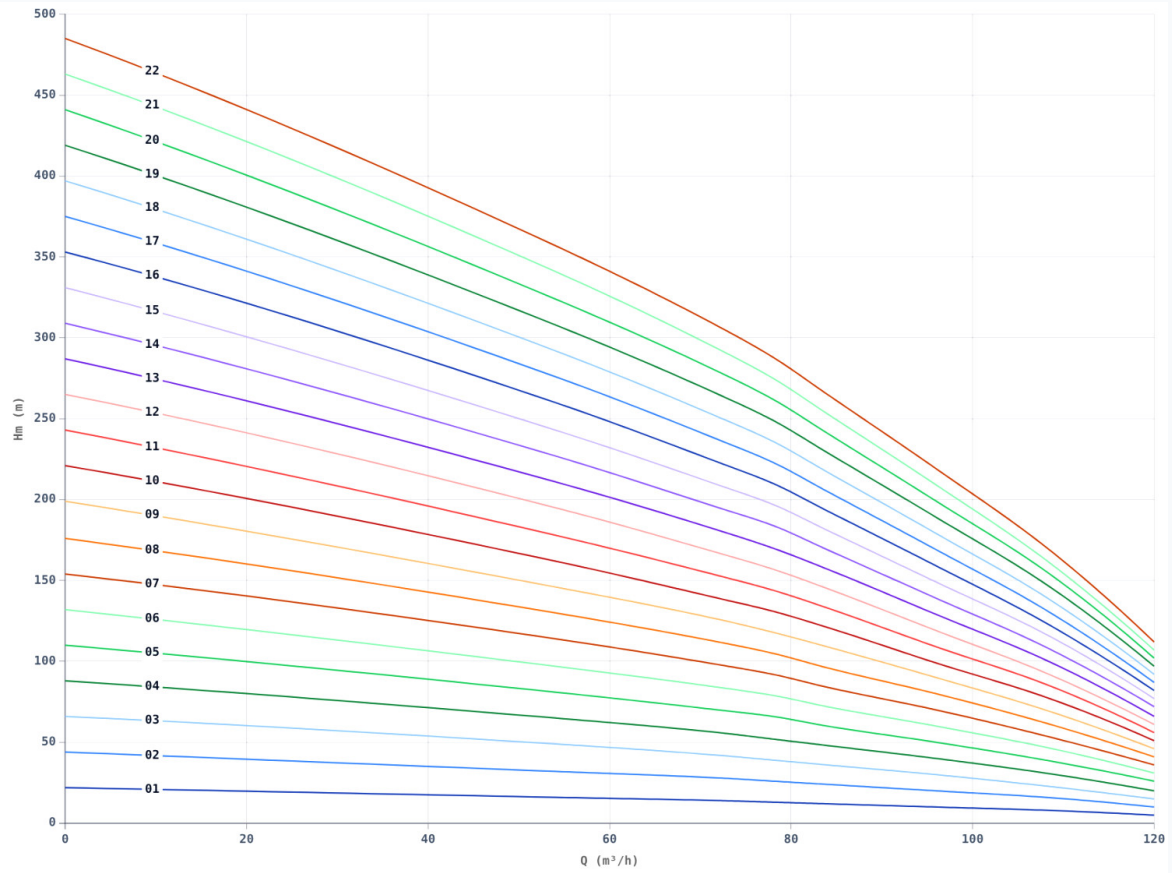
## CURVA DE PERFORMANCE (Q - HM)



Curvas de caudal (Q) vs. altura manométrica (Hm)

| Model  | kW    | HP    | Amperage | m³/h   | 0     | 45    | 66    | 72    | 84    | 90    | 100  | 105  |
|--------|-------|-------|----------|--------|-------|-------|-------|-------|-------|-------|------|------|
|        |       |       |          | Hm (m) |       |       |       |       |       |       |      |      |
| 675 01 | 4,00  | 5,50  | -        |        | 16,0  | 12,0  | 10,0  | 9,0   | 8,0   | 7,0   | 5,0  | 4,0  |
| 675 02 | 5,50  | 7,50  | -        |        | 31,0  | 24,0  | 20,0  | 19,0  | 15,0  | 13,0  | 10,0 | 8,0  |
| 675 03 | 9,30  | 12,50 | -        |        | 47,0  | 36,0  | 30,0  | 28,0  | 23,0  | 20,0  | 15,0 | 12,0 |
| 675 04 | 11,00 | 15,00 | -        |        | 63,0  | 48,0  | 40,0  | 37,0  | 30,0  | 27,0  | 20,0 | 16,0 |
| 675 05 | 13,00 | 17,50 | -        |        | 78,0  | 61,0  | 50,0  | 46,0  | 38,0  | 33,0  | 25,0 | 20,0 |
| 675 06 | 15,00 | 20,00 | -        |        | 94,0  | 73,0  | 60,0  | 56,0  | 46,0  | 40,0  | 30,0 | 24,0 |
| 675 07 | 18,50 | 25,00 | -        |        | 110,0 | 85,0  | 70,0  | 65,0  | 53,0  | 47,0  | 35,0 | 28,0 |
| 675 08 | 22,00 | 30,00 | -        |        | 125,0 | 97,0  | 80,0  | 74,0  | 61,0  | 53,0  | 40,0 | 32,0 |
| 675 09 | 22,00 | 30,00 | -        |        | 141,0 | 109,0 | 90,0  | 84,0  | 68,0  | 60,0  | 45,0 | 36,0 |
| 675 10 | 26,50 | 35,00 | -        |        | 157,0 | 121,0 | 100,0 | 93,0  | 76,0  | 67,0  | 50,0 | 40,0 |
| 675 11 | 30,00 | 40,00 | -        |        | 172,0 | 133,0 | 110,0 | 102,0 | 84,0  | 73,0  | 55,0 | 44,0 |
| 675 12 | 30,00 | 40,00 | -        |        | 188,0 | 145,0 | 120,0 | 111,0 | 91,0  | 80,0  | 60,0 | 48,0 |
| 675 13 | 37,00 | 50,00 | -        |        | 204,0 | 157,0 | 130,0 | 121,0 | 99,0  | 87,0  | 65,0 | 52,0 |
| 675 14 | 37,00 | 50,00 | -        |        | 220,0 | 169,0 | 140,0 | 130,0 | 106,0 | 94,0  | 70,0 | 56,0 |
| 675 15 | 37,00 | 50,00 | -        |        | 235,0 | 182,0 | 150,0 | 139,0 | 114,0 | 100,0 | 75,0 | 60,0 |
| 675 16 | 45,00 | 60,00 | -        |        | 251,0 | 194,0 | 160,0 | 148,0 | 122,0 | 107,0 | 80,0 | 64,0 |
| 675 17 | 45,00 | 60,00 | -        |        | 267,0 | 206,0 | 170,0 | 158,0 | 129,0 | 114,0 | 85,0 | 68,0 |
| 675 18 | 45,00 | 60,00 | -        |        | 282,0 | 218,0 | 180,0 | 167,0 | 137,0 | 120,0 | 90,0 | 72,0 |

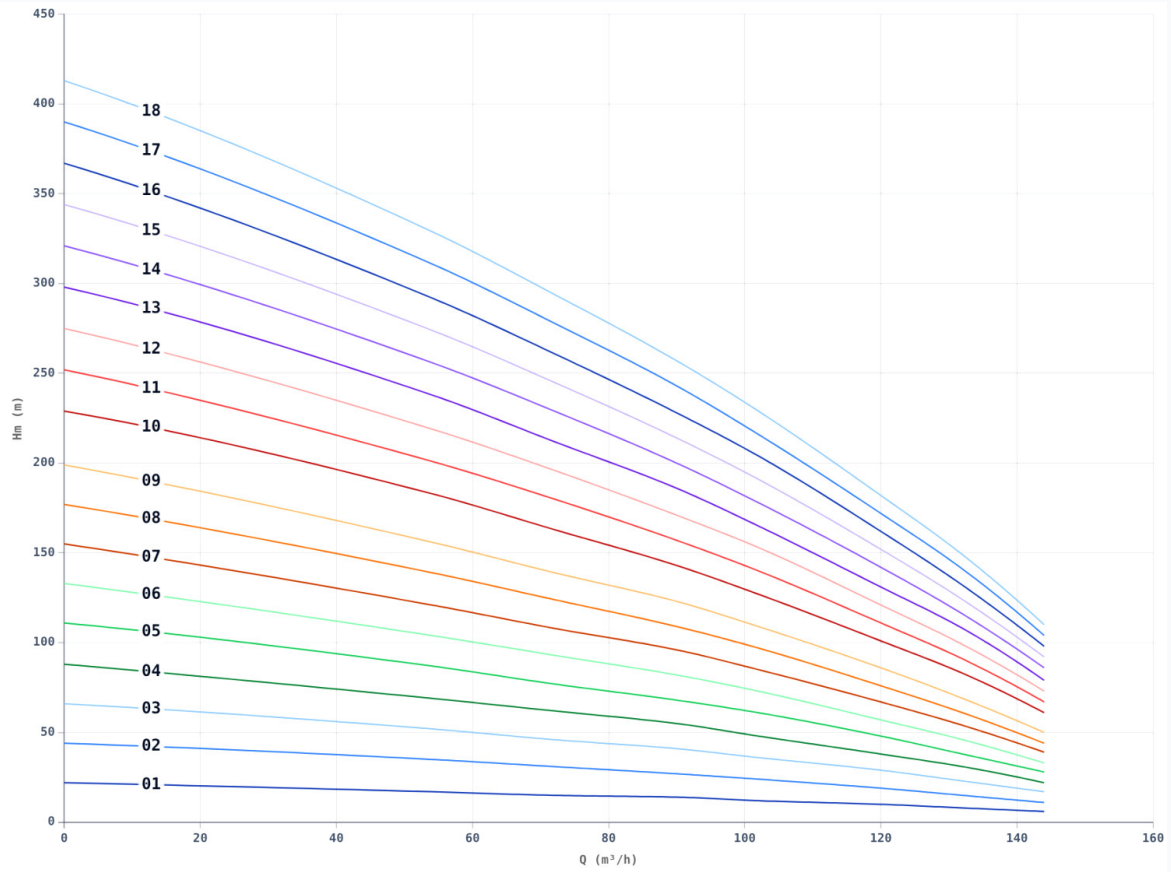
## CURVA DE PERFORMANCE (Q - HM)



Curvas de caudal (Q) vs. altura manométrica (Hm)

| Model  | kW    | HP     | Amperage | m³/h | 0      | 54    | 72    | 78    | 84    | 96    | 108   | 120   |
|--------|-------|--------|----------|------|--------|-------|-------|-------|-------|-------|-------|-------|
|        |       |        |          |      | Hm (m) |       |       |       |       |       |       |       |
| 785 01 | 5,50  | 7,50   | -        |      | 22,0   | 16,0  | 14,0  | 13,0  | 12,0  | 10,0  | 8,0   | 5,0   |
| 785 02 | 9,30  | 12,50  | -        |      | 44,0   | 32,0  | 28,0  | 26,0  | 24,0  | 20,0  | 16,0  | 10,0  |
| 785 03 | 13,00 | 17,50  | -        |      | 66,0   | 49,0  | 42,0  | 39,0  | 36,0  | 30,0  | 23,0  | 15,0  |
| 785 04 | 18,50 | 25,00  | -        |      | 88,0   | 65,0  | 56,0  | 52,0  | 48,0  | 40,0  | 31,0  | 20,0  |
| 785 05 | 22,00 | 30,00  | -        |      | 110,0  | 81,0  | 70,0  | 66,0  | 60,0  | 50,0  | 39,0  | 26,0  |
| 785 06 | 26,50 | 35,00  | -        |      | 132,0  | 97,0  | 84,0  | 79,0  | 72,0  | 60,0  | 47,0  | 31,0  |
| 785 07 | 30,00 | 40,00  | -        |      | 154,0  | 114,0 | 98,0  | 92,0  | 84,0  | 70,0  | 54,0  | 36,0  |
| 785 08 | 37,00 | 50,00  | -        |      | 176,0  | 130,0 | 112,0 | 105,0 | 96,0  | 80,0  | 62,0  | 41,0  |
| 785 09 | 37,00 | 50,00  | -        |      | 199,0  | 146,0 | 126,0 | 118,0 | 109,0 | 90,0  | 70,0  | 46,0  |
| 785 10 | 45,00 | 60,00  | -        |      | 221,0  | 162,0 | 139,0 | 131,0 | 121,0 | 99,0  | 78,0  | 51,0  |
| 785 11 | 45,00 | 60,00  | -        |      | 243,0  | 178,0 | 153,0 | 144,0 | 133,0 | 109,0 | 86,0  | 56,0  |
| 785 12 | 55,00 | 75,00  | -        |      | 265,0  | 195,0 | 167,0 | 157,0 | 145,0 | 119,0 | 93,0  | 61,0  |
| 785 13 | 55,00 | 75,00  | -        |      | 287,0  | 211,0 | 181,0 | 170,0 | 157,0 | 129,0 | 101,0 | 66,0  |
| 785 14 | 60,00 | 80,00  | -        |      | 309,0  | 227,0 | 195,0 | 184,0 | 169,0 | 139,0 | 109,0 | 72,0  |
| 785 15 | 60,00 | 80,00  | -        |      | 331,0  | 243,0 | 209,0 | 197,0 | 181,0 | 149,0 | 117,0 | 77,0  |
| 785 16 | 67,00 | 90,00  | -        |      | 353,0  | 260,0 | 223,0 | 210,0 | 193,0 | 159,0 | 124,0 | 82,0  |
| 785 17 | 67,00 | 90,00  | -        |      | 375,0  | 276,0 | 237,0 | 223,0 | 205,0 | 169,0 | 132,0 | 87,0  |
| 785 18 | 75,00 | 100,00 | -        |      | 397,0  | 292,0 | 251,0 | 236,0 | 217,0 | 179,0 | 140,0 | 92,0  |
| 785 19 | 75,00 | 100,00 | -        |      | 419,0  | 308,0 | 265,0 | 249,0 | 229,0 | 189,0 | 148,0 | 97,0  |
| 785 20 | 93,00 | 125,00 | -        |      | 441,0  | 324,0 | 279,0 | 262,0 | 241,0 | 199,0 | 156,0 | 102,0 |
| 785 21 | 93,00 | 125,00 | -        |      | 463,0  | 341,0 | 293,0 | 275,0 | 253,0 | 209,0 | 163,0 | 107,0 |
| 785 22 | 93,00 | 125,00 | -        |      | 485,0  | 357,0 | 307,0 | 288,0 | 265,0 | 219,0 | 171,0 | 112,0 |

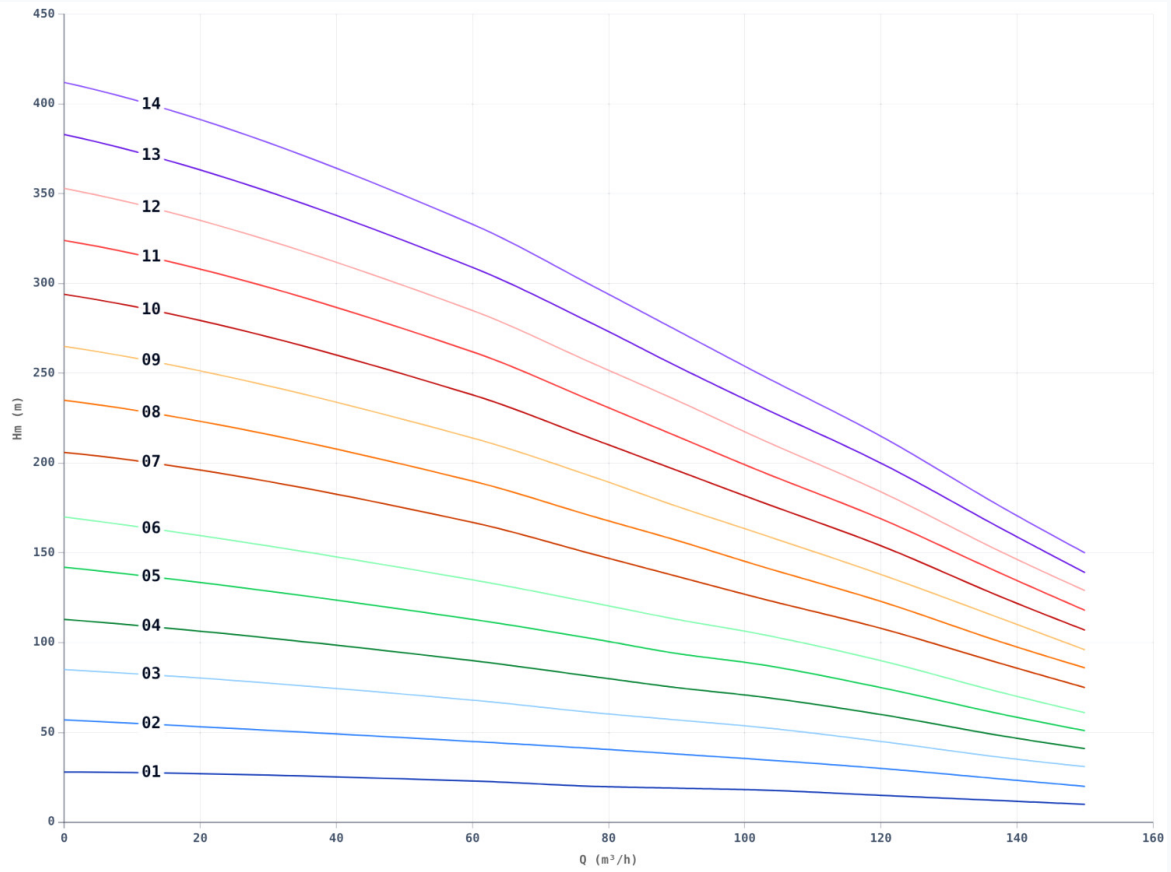
## CURVA DE PERFORMANCE (Q - HM)



Curvas de caudal (Q) vs. altura manométrica (Hm)

| Model  | kW    | HP     | Amperage | m³/h   | 0     | 54    | 72    | 90    | 102   | 120   | 132   | 144   |
|--------|-------|--------|----------|--------|-------|-------|-------|-------|-------|-------|-------|-------|
|        |       |        |          | Hm (m) |       |       |       |       |       |       |       |       |
| 795 01 | 5,50  | 7,50   | -        |        | 22,0  | 17,0  | 15,0  | 14,0  | 12,0  | 10,0  | 8,0   | 6,0   |
| 795 02 | 11,00 | 15,00  | -        |        | 44,0  | 35,0  | 31,0  | 27,0  | 24,0  | 19,0  | 15,0  | 11,0  |
| 795 03 | 15,00 | 20,00  | -        |        | 66,0  | 52,0  | 46,0  | 41,0  | 36,0  | 29,0  | 23,0  | 17,0  |
| 795 04 | 22,00 | 30,00  | -        |        | 88,0  | 69,0  | 62,0  | 55,0  | 48,0  | 38,0  | 31,0  | 22,0  |
| 795 05 | 26,50 | 35,00  | -        |        | 111,0 | 87,0  | 77,0  | 68,0  | 61,0  | 48,0  | 38,0  | 28,0  |
| 795 06 | 30,00 | 40,00  | -        |        | 133,0 | 104,0 | 93,0  | 82,0  | 73,0  | 57,0  | 46,0  | 33,0  |
| 795 07 | 37,00 | 50,00  | -        |        | 155,0 | 121,0 | 108,0 | 96,0  | 85,0  | 67,0  | 54,0  | 39,0  |
| 795 08 | 45,00 | 60,00  | -        |        | 177,0 | 139,0 | 124,0 | 109,0 | 97,0  | 76,0  | 61,0  | 44,0  |
| 795 09 | 45,00 | 60,00  | -        |        | 199,0 | 156,0 | 139,0 | 123,0 | 109,0 | 86,0  | 69,0  | 50,0  |
| 795 10 | 55,00 | 75,00  | -        |        | 229,0 | 183,0 | 163,0 | 143,0 | 127,0 | 101,0 | 83,0  | 61,0  |
| 795 11 | 55,00 | 75,00  | -        |        | 252,0 | 201,0 | 180,0 | 157,0 | 140,0 | 111,0 | 91,0  | 67,0  |
| 795 12 | 60,00 | 80,00  | -        |        | 275,0 | 219,0 | 196,0 | 171,0 | 153,0 | 121,0 | 99,0  | 73,0  |
| 795 13 | 67,00 | 90,00  | -        |        | 298,0 | 238,0 | 212,0 | 186,0 | 165,0 | 131,0 | 108,0 | 79,0  |
| 795 14 | 75,00 | 100,00 | -        |        | 321,0 | 256,0 | 229,0 | 200,0 | 178,0 | 142,0 | 116,0 | 86,0  |
| 795 15 | 75,00 | 100,00 | -        |        | 344,0 | 274,0 | 245,0 | 214,0 | 191,0 | 152,0 | 124,0 | 92,0  |
| 795 16 | 93,00 | 125,00 | -        |        | 367,0 | 292,0 | 261,0 | 228,0 | 204,0 | 162,0 | 132,0 | 98,0  |
| 795 17 | 93,00 | 125,00 | -        |        | 390,0 | 311,0 | 278,0 | 243,0 | 216,0 | 172,0 | 141,0 | 104,0 |
| 795 18 | 93,00 | 125,00 | -        |        | 413,0 | 329,0 | 294,0 | 257,0 | 229,0 | 182,0 | 149,0 | 110,0 |

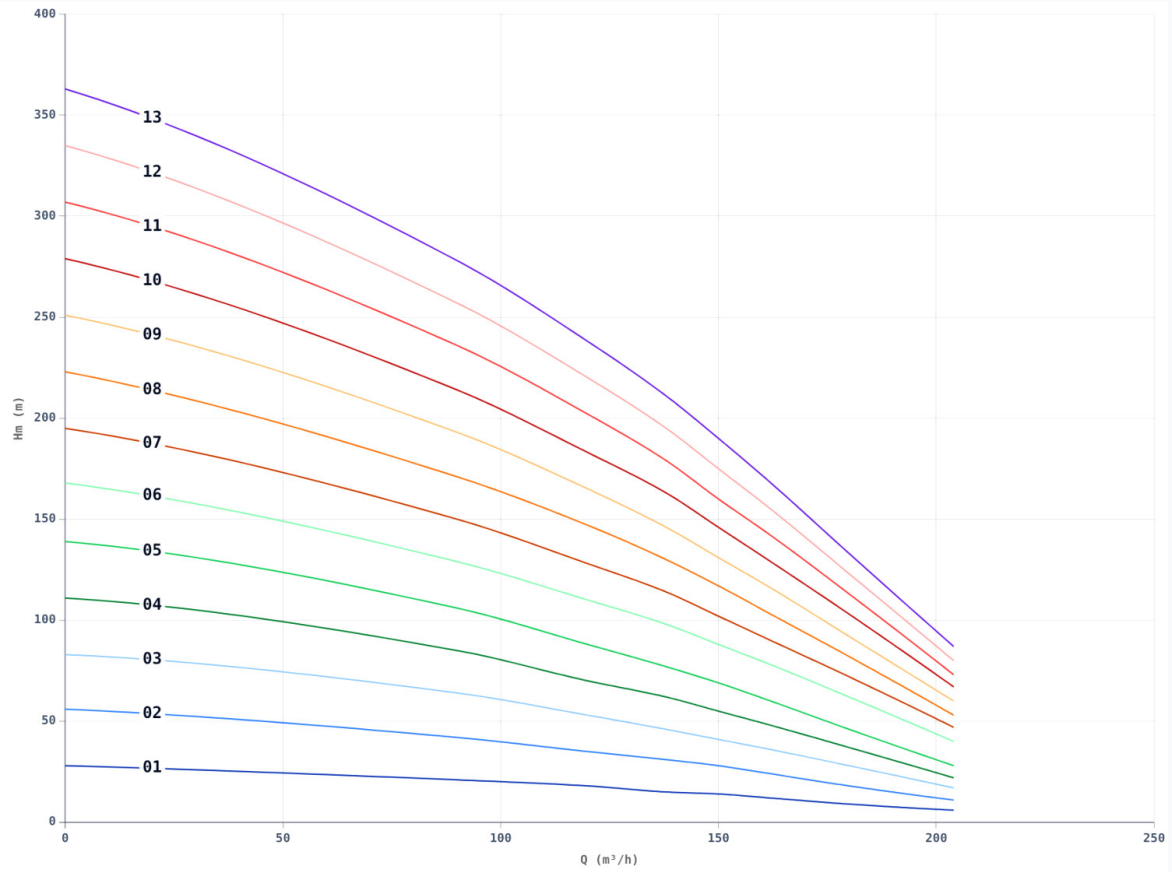
## CURVA DE PERFORMANCE (Q - HM)



Curvas de caudal (Q) vs. altura manométrica (Hm)

| Model   | kW    | HP     | Amperage | m <sup>3</sup> /h | 0     | 60    | 78    | 90    | 102   | 120   | 138   | 150   |
|---------|-------|--------|----------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|
|         |       |        |          | Hm (m)            |       |       |       |       |       |       |       |       |
| 8120 01 | 7,50  | 10,00  | -        |                   | 28,0  | 23,0  | 20,0  | 19,0  | 18,0  | 15,0  | 12,0  | 10,0  |
| 8120 02 | 15,00 | 20,00  | -        |                   | 57,0  | 45,0  | 41,0  | 38,0  | 35,0  | 30,0  | 24,0  | 20,0  |
| 8120 03 | 22,00 | 30,00  | -        |                   | 85,0  | 68,0  | 61,0  | 57,0  | 53,0  | 45,0  | 36,0  | 31,0  |
| 8120 04 | 30,00 | 40,00  | -        |                   | 113,0 | 90,0  | 81,0  | 75,0  | 70,0  | 60,0  | 48,0  | 41,0  |
| 8120 05 | 37,00 | 50,00  | -        |                   | 142,0 | 113,0 | 102,0 | 94,0  | 88,0  | 75,0  | 60,0  | 51,0  |
| 8120 06 | 45,00 | 60,00  | -        |                   | 170,0 | 135,0 | 122,0 | 113,0 | 105,0 | 90,0  | 72,0  | 61,0  |
| 8120 07 | 55,00 | 75,00  | -        |                   | 206,0 | 167,0 | 149,0 | 137,0 | 125,0 | 108,0 | 88,0  | 75,0  |
| 8120 08 | 60,00 | 80,00  | -        |                   | 235,0 | 190,0 | 170,0 | 157,0 | 143,0 | 123,0 | 100,0 | 86,0  |
| 8120 09 | 67,00 | 90,00  | -        |                   | 265,0 | 214,0 | 192,0 | 176,0 | 161,0 | 138,0 | 113,0 | 96,0  |
| 8120 10 | 75,00 | 100,00 | -        |                   | 294,0 | 238,0 | 213,0 | 196,0 | 179,0 | 154,0 | 125,0 | 107,0 |
| 8120 11 | 75,00 | 100,00 | -        |                   | 324,0 | 262,0 | 234,0 | 215,0 | 196,0 | 169,0 | 138,0 | 118,0 |
| 8120 12 | 93,00 | 125,00 | -        |                   | 353,0 | 285,0 | 255,0 | 235,0 | 214,0 | 184,0 | 150,0 | 129,0 |
| 8120 13 | 93,00 | 125,00 | -        |                   | 383,0 | 309,0 | 277,0 | 254,0 | 232,0 | 200,0 | 163,0 | 139,0 |
| 8120 14 | 93,00 | 125,00 | -        |                   | 412,0 | 333,0 | 298,0 | 274,0 | 250,0 | 215,0 | 175,0 | 150,0 |

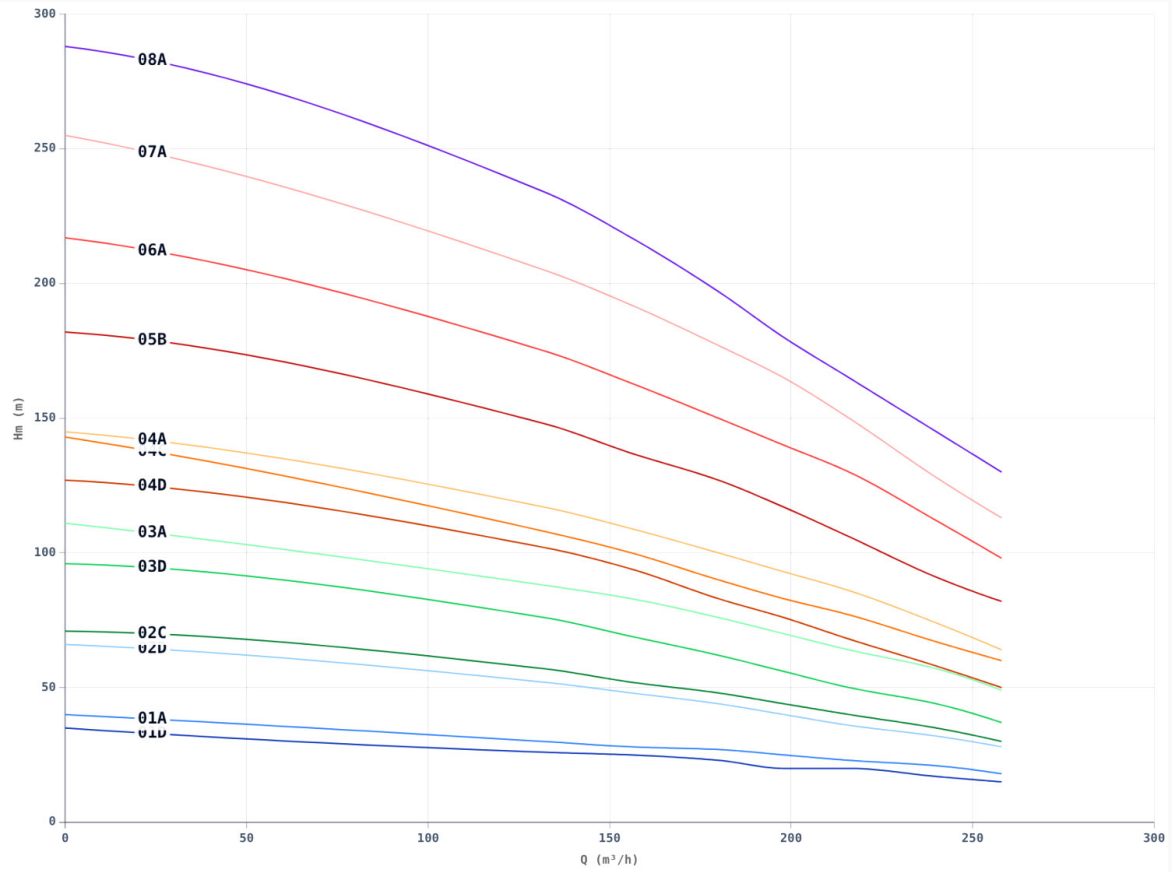
## CURVA DE PERFORMANCE (Q - HM)



Curvas de caudal (Q) vs. altura manométrica (Hm)

| Model   | kW     | HP     | Amperage | m³/h | 0      | 90    | 120   | 138   | 150   | 162   | 180   | 204  |
|---------|--------|--------|----------|------|--------|-------|-------|-------|-------|-------|-------|------|
|         |        |        |          |      | Hm (m) |       |       |       |       |       |       |      |
| 8150 01 | 9,30   | 12,50  | -        |      | 28,0   | 21,0  | 18,0  | 15,0  | 14,0  | 12,0  | 9,0   | 6,0  |
| 8150 02 | 18,50  | 25,00  | -        |      | 56,0   | 42,0  | 35,0  | 31,0  | 28,0  | 24,0  | 18,0  | 11,0 |
| 8150 03 | 30,00  | 40,00  | -        |      | 83,0   | 64,0  | 53,0  | 46,0  | 41,0  | 36,0  | 28,0  | 17,0 |
| 8150 04 | 37,00  | 50,00  | -        |      | 111,0  | 85,0  | 70,0  | 62,0  | 55,0  | 48,0  | 37,0  | 22,0 |
| 8150 05 | 45,00  | 60,00  | -        |      | 139,0  | 106,0 | 88,0  | 77,0  | 69,0  | 60,0  | 46,0  | 28,0 |
| 8150 06 | 55,00  | 75,00  | -        |      | 168,0  | 129,0 | 110,0 | 98,0  | 88,0  | 78,0  | 62,0  | 40,0 |
| 8150 07 | 67,00  | 90,00  | -        |      | 195,0  | 150,0 | 128,0 | 114,0 | 102,0 | 90,0  | 72,0  | 47,0 |
| 8150 08 | 75,00  | 100,00 | -        |      | 223,0  | 171,0 | 147,0 | 130,0 | 117,0 | 103,0 | 82,0  | 53,0 |
| 8150 09 | 83,00  | 110,00 | -        |      | 251,0  | 193,0 | 165,0 | 146,0 | 131,0 | 116,0 | 92,0  | 60,0 |
| 8150 10 | 93,00  | 125,00 | -        |      | 279,0  | 214,0 | 183,0 | 163,0 | 146,0 | 129,0 | 103,0 | 67,0 |
| 8150 11 | 110,00 | 150,00 | -        |      | 307,0  | 236,0 | 202,0 | 179,0 | 160,0 | 142,0 | 113,0 | 73,0 |
| 8150 12 | 130,00 | 175,00 | -        |      | 335,0  | 257,0 | 220,0 | 195,0 | 175,0 | 155,0 | 123,0 | 80,0 |
| 8150 13 | 130,00 | 175,00 | -        |      | 363,0  | 278,0 | 238,0 | 211,0 | 190,0 | 168,0 | 133,0 | 87,0 |

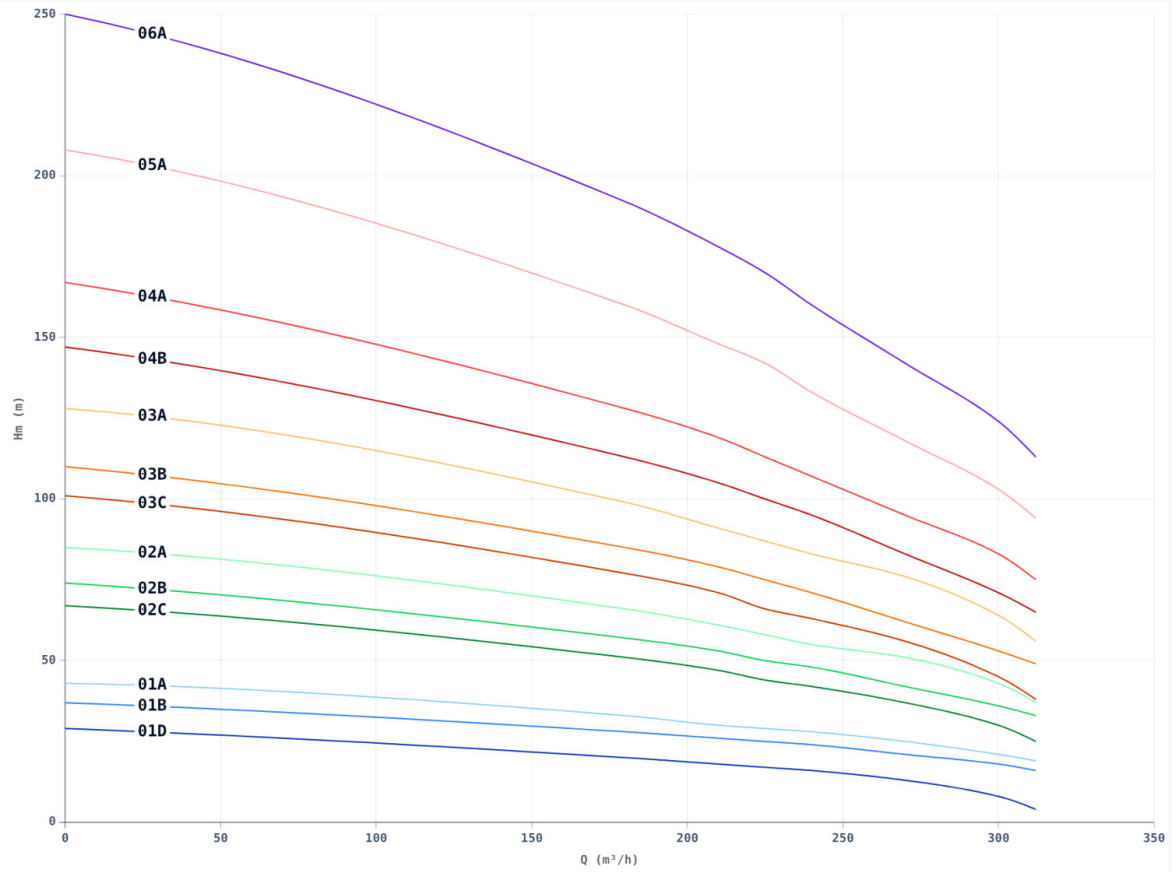
## CURVA DE PERFORMANCE (Q - HM)



Curvas de caudal (Q) vs. altura manométrica (Hm)

| Model     | kW     | HP     | Amperage | m³/h | Hm (m) |       |       |       |       |       |       |       |
|-----------|--------|--------|----------|------|--------|-------|-------|-------|-------|-------|-------|-------|
|           |        |        |          |      | 0      | 132   | 156   | 180   | 198   | 216   | 240   | 258   |
| 10200 01D | 15,00  | 20,00  | -        |      | 35,0   | 26,0  | 25,0  | 23,0  | 20,0  | 20,0  | 17,0  | 15,0  |
| 10200 01A | 18,50  | 25,00  | -        |      | 40,0   | 30,0  | 28,0  | 27,0  | 25,0  | 23,0  | 21,0  | 18,0  |
| 10200 02D | 30,00  | 40,00  | -        |      | 66,0   | 52,0  | 48,0  | 44,0  | 40,0  | 36,0  | 32,0  | 28,0  |
| 10200 02C | 37,00  | 50,00  | -        |      | 71,0   | 57,0  | 52,0  | 48,0  | 44,0  | 40,0  | 35,0  | 30,0  |
| 10200 03D | 45,00  | 60,00  | -        |      | 96,0   | 76,0  | 69,0  | 62,0  | 56,0  | 50,0  | 44,0  | 37,0  |
| 10200 03A | 55,00  | 75,00  | -        |      | 111,0  | 88,0  | 83,0  | 76,0  | 70,0  | 64,0  | 57,0  | 49,0  |
| 10200 04D | 60,00  | 80,00  | -        |      | 127,0  | 102,0 | 94,0  | 83,0  | 76,0  | 68,0  | 58,0  | 50,0  |
| 10200 04C | 67,00  | 90,00  | -        |      | 143,0  | 108,0 | 100,0 | 90,0  | 83,0  | 77,0  | 67,0  | 60,0  |
| 10200 04A | 75,00  | 100,00 | -        |      | 145,0  | 117,0 | 109,0 | 100,0 | 93,0  | 86,0  | 74,0  | 64,0  |
| 10200 05B | 93,00  | 125,00 | -        |      | 182,0  | 148,0 | 137,0 | 127,0 | 117,0 | 106,0 | 91,0  | 82,0  |
| 10200 06A | 110,00 | 150,00 | -        |      | 217,0  | 175,0 | 163,0 | 150,0 | 140,0 | 130,0 | 112,0 | 98,0  |
| 10200 07A | 130,00 | 175,00 | -        |      | 255,0  | 205,0 | 192,0 | 177,0 | 165,0 | 150,0 | 128,0 | 113,0 |
| 10200 08A | 150,00 | 200,00 | -        |      | 288,0  | 234,0 | 217,0 | 197,0 | 180,0 | 165,0 | 145,0 | 130,0 |

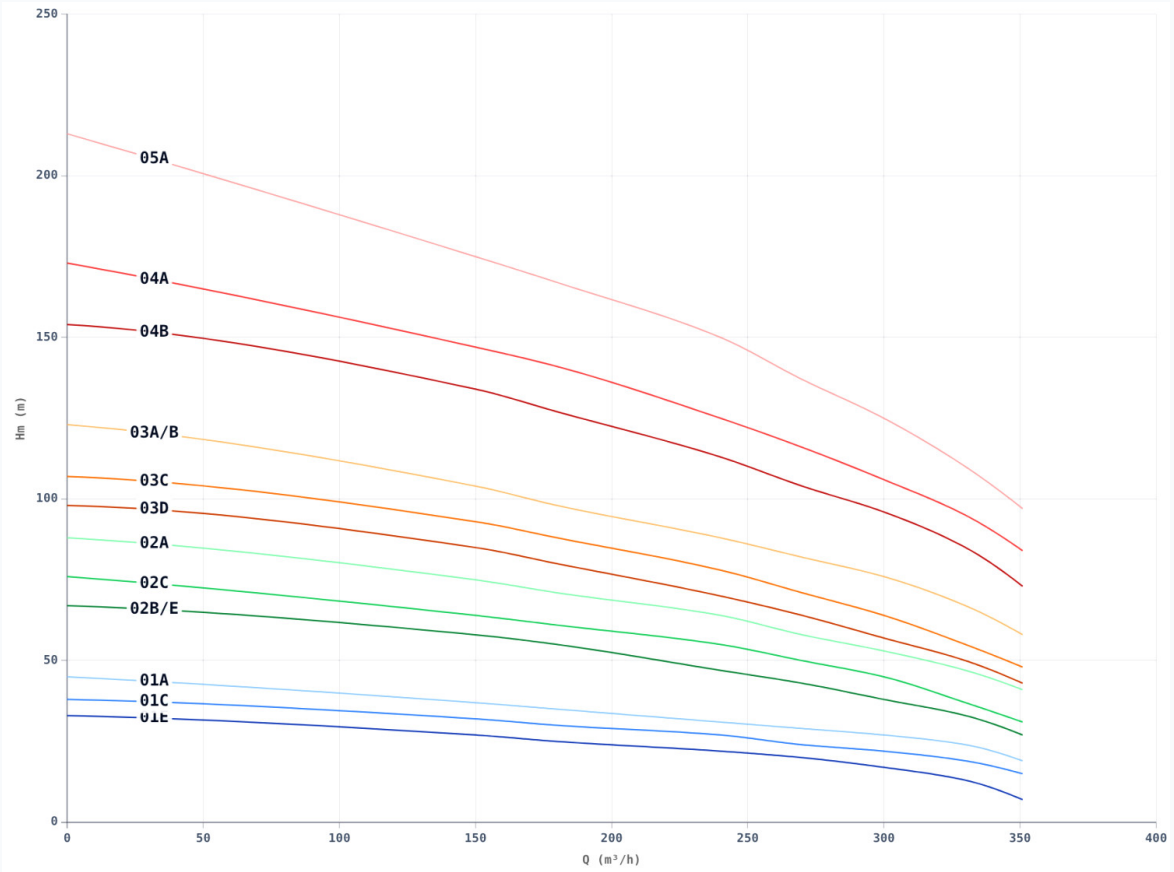
## CURVA DE PERFORMANCE (Q - HM)



Curvas de caudal (Q) vs. altura manométrica (Hm)

| Model     | kW     | HP     | Amperage | m³/h | Hm (m) |       |       |       |       |       |       |       |
|-----------|--------|--------|----------|------|--------|-------|-------|-------|-------|-------|-------|-------|
|           |        |        |          |      | 0      | 180   | 210   | 225   | 240   | 270   | 300   | 312   |
| 10270 01D | 18,50  | 25,00  | -        |      | 29,0   | 20,0  | 18,0  | 17,0  | 16,0  | 13,0  | 8,0   | 4,0   |
| 10270 01B | 26,50  | 35,00  | -        |      | 37,0   | 28,0  | 26,0  | 25,0  | 24,0  | 21,0  | 18,0  | 16,0  |
| 10270 01A | 30,00  | 40,00  | -        |      | 43,0   | 33,0  | 30,0  | 29,0  | 28,0  | 25,0  | 21,0  | 19,0  |
| 10270 02C | 45,00  | 60,00  | -        |      | 67,0   | 51,0  | 47,0  | 44,0  | 42,0  | 37,0  | 30,0  | 25,0  |
| 10270 02B | 55,00  | 75,00  | -        |      | 74,0   | 57,0  | 53,0  | 50,0  | 48,0  | 42,0  | 36,0  | 33,0  |
| 10270 02A | 60,00  | 80,00  | -        |      | 85,0   | 66,0  | 61,0  | 58,0  | 55,0  | 51,0  | 43,0  | 37,0  |
| 10270 03C | 66,00  | 90,00  | -        |      | 101,0  | 77,0  | 71,0  | 66,0  | 63,0  | 56,0  | 45,0  | 38,0  |
| 10270 03B | 75,00  | 100,00 | -        |      | 110,0  | 85,0  | 79,0  | 75,0  | 71,0  | 62,0  | 53,0  | 49,0  |
| 10270 03A | 81,00  | 110,00 | -        |      | 128,0  | 99,0  | 91,0  | 87,0  | 83,0  | 76,0  | 64,0  | 56,0  |
| 10270 04B | 93,00  | 125,00 | -        |      | 147,0  | 113,0 | 105,0 | 100,0 | 95,0  | 83,0  | 71,0  | 65,0  |
| 10270 04A | 110,00 | 150,00 | -        |      | 167,0  | 128,0 | 119,0 | 113,0 | 107,0 | 95,0  | 83,0  | 75,0  |
| 10270 05A | 130,00 | 175,00 | -        |      | 208,0  | 160,0 | 148,0 | 142,0 | 133,0 | 118,0 | 103,0 | 94,0  |
| 10270 06A | 150,00 | 200,00 | -        |      | 250,0  | 192,0 | 178,0 | 170,0 | 160,0 | 142,0 | 124,0 | 113,0 |

## CURVA DE PERFORMANCE (Q - Hm)



Curvas de caudal (Q) vs. altura manométrica (Hm)

| Model       | kW     | HP     | Amperage | m³/h | 0      | 150   | 180   | 240   | 270   | 300   | 330   | 351  |
|-------------|--------|--------|----------|------|--------|-------|-------|-------|-------|-------|-------|------|
|             |        |        |          |      | Hm (m) |       |       |       |       |       |       |      |
| 10300 01E   | 26,50  | 35,00  | -        |      | 33,0   | 27,0  | 25,0  | 22,0  | 20,0  | 17,0  | 13,0  | 7,0  |
| 10300 01C   | 30,00  | 40,00  | -        |      | 38,0   | 32,0  | 30,0  | 27,0  | 24,0  | 22,0  | 19,0  | 15,0 |
| 10300 01A   | 45,00  | 60,00  | -        |      | 45,0   | 37,0  | 35,0  | 31,0  | 29,0  | 27,0  | 24,0  | 19,0 |
| 10300 02B/E | 52,00  | 70,00  | -        |      | 67,0   | 58,0  | 55,0  | 47,0  | 43,0  | 38,0  | 33,0  | 27,0 |
| 10300 02C   | 55,00  | 75,00  | -        |      | 76,0   | 64,0  | 61,0  | 55,0  | 50,0  | 45,0  | 37,0  | 31,0 |
| 10300 02A   | 67,00  | 90,00  | -        |      | 88,0   | 75,0  | 71,0  | 64,0  | 58,0  | 53,0  | 47,0  | 41,0 |
| 10300 03D   | 75,00  | 100,00 | -        |      | 98,0   | 85,0  | 80,0  | 70,0  | 64,0  | 57,0  | 50,0  | 43,0 |
| 10300 03C   | 83,00  | 110,00 | -        |      | 107,0  | 93,0  | 88,0  | 78,0  | 71,0  | 64,0  | 55,0  | 48,0 |
| 10300 03A/B | 93,00  | 125,00 | -        |      | 123,0  | 104,0 | 98,0  | 88,0  | 82,0  | 76,0  | 67,0  | 58,0 |
| 10300 04B   | 110,00 | 150,00 | -        |      | 154,0  | 134,0 | 127,0 | 113,0 | 104,0 | 96,0  | 85,0  | 73,0 |
| 10300 04A   | 130,00 | 175,00 | -        |      | 173,0  | 147,0 | 141,0 | 125,0 | 116,0 | 106,0 | 95,0  | 84,0 |
| 10300 05A   | 150,00 | 200,00 | -        |      | 213,0  | 175,0 | 167,0 | 150,0 | 137,0 | 125,0 | 110,0 | 97,0 |

## LIST OF MATERIALS



| Pos. | Description                   | Material (Standard)        | Material (Bronze)          |
|------|-------------------------------|----------------------------|----------------------------|
| 1    | Casquilho                     | Poliuretano                | Poliuretano                |
| 2    | Válvula                       | Aço inox. AISI 304         | Aço inox. AISI 304         |
| 3    | O'ring                        | Borracha nitrílica         | Borracha nitrílica         |
| 4    | Casquilho (c/ reforço inox.)  | Borracha nitrílica c/ inox | Borracha nitrílica c/ inox |
| 5    | Casquilho                     | Aço inox. AISI 304         | Aço inox. AISI 304         |
| 6    | O'ring                        | Borracha                   | Borracha                   |
| 7    | Turbina                       | Ferro Fundido GG25         | Bronze B10                 |
| 8    | Anel desgaste (reforço inox.) | Borracha nitrílica c/ inox | Borracha nitrílica c/ inox |
| 9    | Difusor                       | Ferro Fundido GG25         | Bronze B10                 |
| 10   | Parafuso DIN 933              | Aço inox. AISI 316         | Aço inox. AISI 316         |
| 11   | Veio                          | Aço inox. AISI 304         | Aço inox. AISI 316         |
| 12   | Casquilho                     | Bronze B10                 | Bronze B10                 |
| 13   | Filtro de aspiração           | Aço inox. AISI 304         | Aço inox. AISI 304         |
| 14   | Chaveta                       | Aço inox. AISI 316         | Aço inox. AISI 316         |
| 15   | Parafuso DIN 912              | Aço inox. AISI 316         | Aço inox. AISI 316         |
| 16   | Cardan                        | Aço inox. AISI 304         | Aço inox. AISI 316         |
| 17   | O'ring                        | Borracha                   | Borracha                   |
| 18   | Câmara aspirante              | Ferro Fundido GG25         | Bronze B10                 |

## USAGE CONDITIONS

- Never run the pump dry. Not even for a short trial run.
- A cooling jacket must be installed if the well diameter is considerably larger than the pump.
- Check rotation direction on three-phase motors.
- Mandatory installation with metallic piping.
- Install a non-return valve on the delivery pipe.
- Mandatory protection: Overload, Short-circuit and Dry running.