

# **VS 6" Series**

## **50 Hz**

**VS 14 - 19 - 30- 46 - 65**



# 6" STAINLESS STEEL SUBMERSIBLE PUMPS

## APPLICATION

- Municipal water works
- Water distribution and pressure boosting
- Irrigation and sprinkler systems, water treatment plants, filtration and reverse osmosis
- Industrial cooling and processing
- Mining industry, drainage and dewatering
- Fire-fighting equipment
- Fountains

## FEATURES

- Fabricated stainless steel impellers and diffusers for corrosion resistance
- Heavy duty stainless steel structure for improved stiffness and ensuring the permanent alignment of all components and thus increased run time and trouble-free operation.
- PTFE floating neck ring, ceramic guide journal sleeve (tungsten-carbide on request) and Nitrile rubber fluted bearing to ensure durability against wear for long-lasting constant performances and product reliability
- Compact, reliable and suited to operate in horizontal position
- Built-in check valve to protect the pump against water hammer risk
- Radial models with double reinforcement rings and mix-flow models longer than 3 m are equipped with tungsten-carbide (widia) upper journal sleeve and with an intermediate tungsten-carbide (widia) journal sleeve plus special intermediate split cone nut
- The hydraulic design is such to enhance the overall efficiency thus reducing energy consumption and making the pumping systems more cost effective

## PUMP SPECIFICATION

- Flow: up to 80 m<sup>3</sup>/h at 50 Hz
- Head: up to 700 m (70 Bar) at 50 Hz
- Water temperature range: Minimum: -5 °C  
Maximum: +60 °C for I (AISI304) version / +90 °C for N (AISI316) and R (904L) versions
- Maximum allowable amount of sand 100 g/m<sup>3</sup>
- Rotation: counter clockwise when looking into the discharge
- Pump can work continuously in vertical or horizontal position

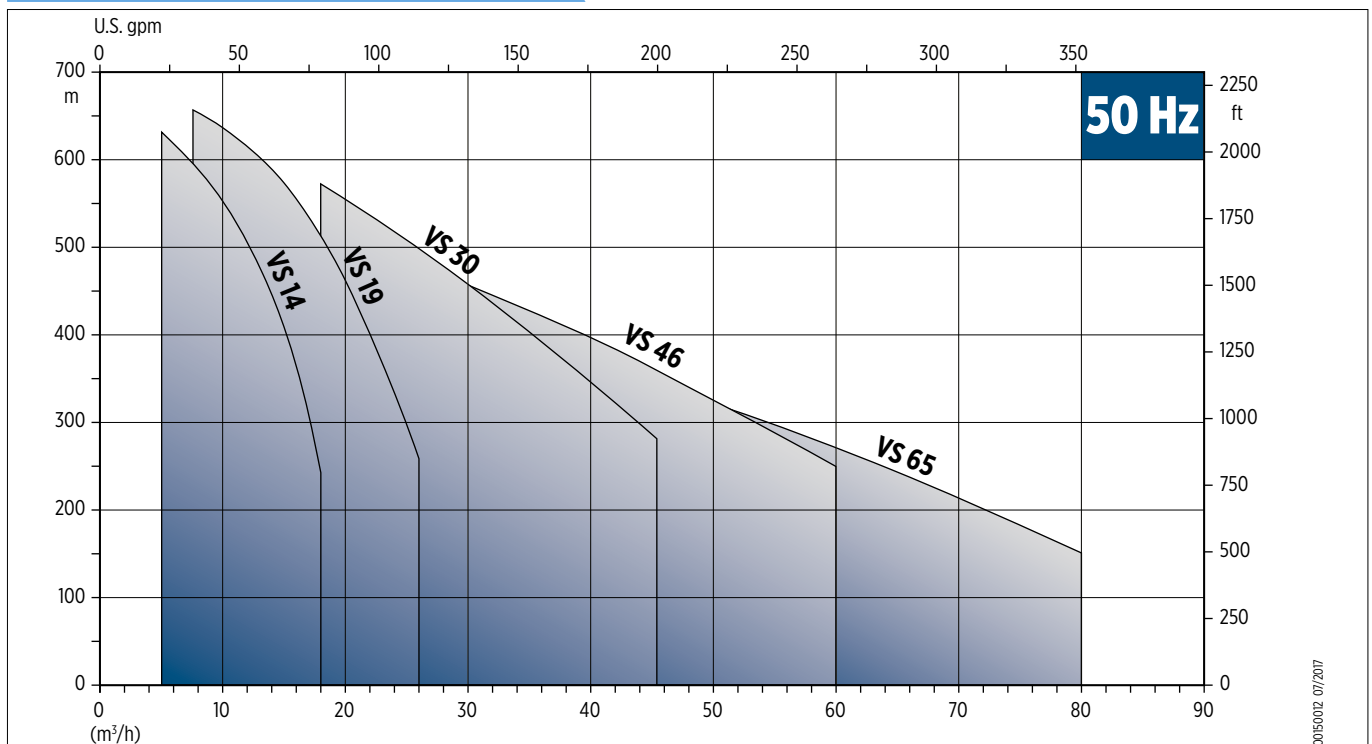
## MOTOR SPECIFICATION

- Motor adapter in compliance with NEMA standard
- For more information consult the product catalog of Submersible motors

### AVAILABLE ON REQUEST

- Pump material: 316 Stainless steel (N) version (DIN/EN 1.4401)  
904L (R) version (DIN/EN 1.4539)  
See specified material variant in "Materials/Fluids compatibility" table on page 7
- Double cable guard
- Discharge heads: Rp 2" and Rp 3" for VS 14 and VS 19  
Rp 4" for VS 30-46-65 I and N versions
- Motor adapter: 4" for I and N version  
8" for I and N version
- Tungsten-carbide guide journal sleeve
- High temperature version (up to 90 °C)
- Bearings bush in FKM

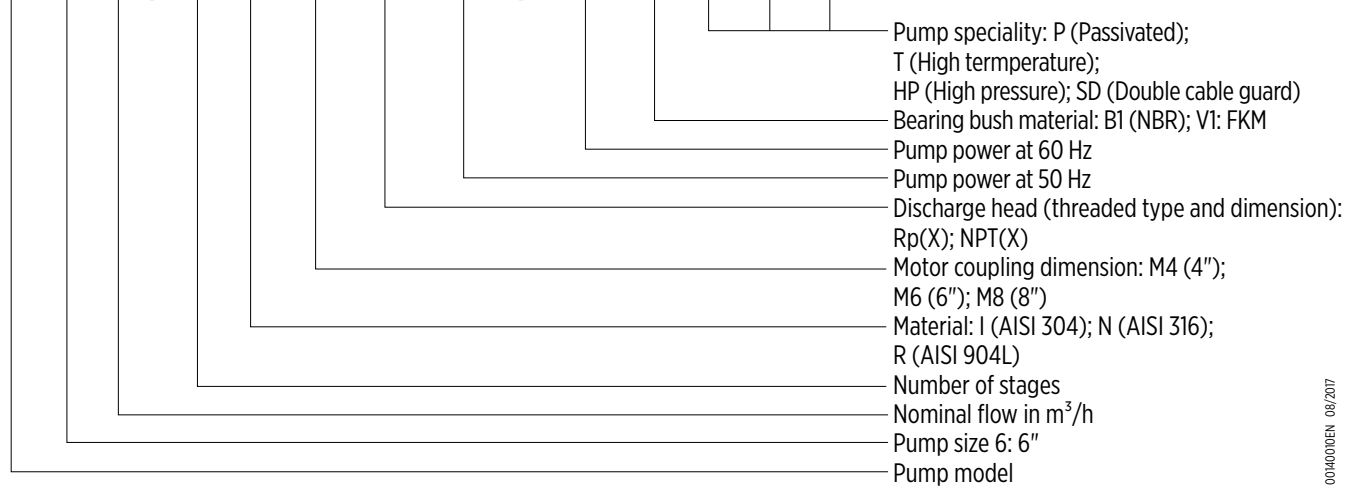
### FAMILY CURVES





## PUMP IDENTIFICATION CODE

VS 6 78 / 15 I M8 Rp5 5505 / 9306 B1 P HP SD



0040010EN 09/2017

## PUMPS AND MOTORS RANGE

| Type | Versions       |                |                | Motor power range [kW] |        |
|------|----------------|----------------|----------------|------------------------|--------|
|      | I<br>EN 1.4301 | N<br>EN 1.4401 | R<br>EN 1.4539 | I e N                  | R      |
|      | VS14           | ○              | ○              | -                      | 4 ÷ 30 |
| VS19 | ○              | ○              | -              | 4 ÷ 37                 | -      |
| VS25 | ○              | ○              | -              | 4 ÷ 45                 | -      |
| VS30 | ○              | ○              | ●              | 3 ÷ 55                 | 4 ÷ 37 |
| VS46 | ○              | ○              | ●              | 3.7 ÷ 55               | 4 ÷ 37 |
| VS65 | ○              | ○              | ●              | 3.7 ÷ 55               | 4 ÷ 37 |

○ = Version available    ● = Version available only with 6" motor coupling

# VS 14

## TABLE OF HYDRAULIC PERFORMANCE AT 50 HZ

| Pump model                                | RATED POWER |      | Q = DELIVERY        |       |       |       |       |       |       |
|---|-------------|------|---------------------|-------|-------|-------|-------|-------|-------|
|   |             |      | m <sup>3</sup> /h 0 | 6     | 8     | 10    | 12    | 15    | 18    |
|   | [kW]        | [HP] | l/min 0             | 100   | 133   | 167   | 200   | 250   | 300   |
| H = TOTAL METERS HEAD OF WATER COLUMN [m] |             |      |                     |       |       |       |       |       |       |
| VS 14/5                                   | 4           | 5.5  | 56.1                | 50.7  | 48.4  | 45.4  | 41.4  | 31.3  | 18.6  |
| VS 14/6                                   | 4           | 5.5  | 67.3                | 60.8  | 58.1  | 54.5  | 49.7  | 37.5  | 22.3  |
| VS 14/7                                   | 4           | 5.5  | 78.5                | 71.0  | 67.8  | 63.6  | 58.0  | 43.8  | 26.0  |
| VS 14/8                                   | 4           | 5.5  | 89.7                | 81.1  | 77.5  | 72.7  | 66.3  | 50.0  | 29.7  |
| VS 14/9                                   | 5.5         | 7.5  | 100.9               | 91.2  | 87.2  | 81.8  | 74.6  | 56.3  | 33.4  |
| VS 14/10                                  | 5.5         | 7.5  | 112.1               | 101.4 | 96.9  | 90.9  | 82.9  | 62.5  | 37.1  |
| VS 14/11                                  | 5.5         | 7.5  | 123.3               | 111.5 | 106.6 | 100.0 | 91.2  | 68.8  | 40.8  |
| VS 14/12                                  | 5.5         | 7.5  | 134.6               | 121.7 | 116.3 | 109.1 | 99.5  | 75.0  | 44.6  |
| VS 14/13                                  | 5.5         | 7.5  | 145.8               | 131.8 | 125.9 | 118.1 | 107.7 | 81.3  | 48.3  |
| VS 14/14                                  | 7.5         | 10   | 157.0               | 141.9 | 135.6 | 127.2 | 116.0 | 87.5  | 52.0  |
| VS 14/15                                  | 7.5         | 10   | 168.2               | 152.1 | 145.3 | 136.3 | 124.3 | 93.8  | 55.7  |
| VS 14/16                                  | 7.5         | 10   | 179.4               | 162.2 | 155.0 | 145.4 | 132.6 | 100.0 | 59.4  |
| VS 14/17                                  | 7.5         | 10   | 190.6               | 172.3 | 164.7 | 154.5 | 140.9 | 106.3 | 63.1  |
| VS 14/18                                  | 9.3         | 12.5 | 201.8               | 182.5 | 174.4 | 163.6 | 149.2 | 112.5 | 66.8  |
| VS 14/19                                  | 9.3         | 12.5 | 213.0               | 192.6 | 184.1 | 172.7 | 157.5 | 118.8 | 70.5  |
| VS 14/20                                  | 9.3         | 12.5 | 224.3               | 202.8 | 193.8 | 181.8 | 165.8 | 125.0 | 74.3  |
| VS 14/21                                  | 9.3         | 12.5 | 235.5               | 212.9 | 203.4 | 190.8 | 174.0 | 131.3 | 78.0  |
| VS 14/22                                  | 9.3         | 12.5 | 246.7               | 223.0 | 213.1 | 199.9 | 182.3 | 137.5 | 81.7  |
| VS 14/23                                  | 11          | 15   | 257.9               | 233.2 | 222.8 | 209.0 | 190.6 | 143.8 | 85.4  |
| VS 14/24                                  | 11          | 15   | 269.1               | 243.3 | 232.5 | 218.1 | 198.9 | 150.0 | 89.1  |
| VS 14/25                                  | 11          | 15   | 280.3               | 253.4 | 242.2 | 227.2 | 207.2 | 156.3 | 92.8  |
| VS 14/26                                  | 11          | 15   | 291.5               | 263.6 | 251.9 | 236.3 | 215.5 | 162.5 | 96.5  |
| VS 14/27                                  | 15          | 20   | 302.7               | 273.7 | 261.6 | 245.4 | 223.8 | 168.8 | 100.2 |
| VS 14/28                                  | 15          | 20   | 314.0               | 283.9 | 271.3 | 254.5 | 232.1 | 175.0 | 104.0 |
| VS 14/29                                  | 15          | 20   | 325.2               | 294.0 | 280.9 | 263.5 | 240.3 | 181.3 | 107.7 |
| VS 14/30                                  | 15          | 20   | 336.4               | 304.1 | 290.6 | 272.6 | 248.6 | 187.5 | 111.4 |
| VS 14/31                                  | 15          | 20   | 347.6               | 314.3 | 300.3 | 281.7 | 256.9 | 193.8 | 115.1 |
| VS 14/32                                  | 15          | 20   | 358.8               | 324.4 | 310.0 | 290.8 | 265.2 | 200.0 | 118.8 |
| VS 14/33                                  | 15          | 20   | 370.0               | 334.5 | 319.7 | 299.9 | 273.5 | 206.3 | 122.5 |
| VS 14/34                                  | 15          | 20   | 381.2               | 344.7 | 329.4 | 309.0 | 281.8 | 212.5 | 126.2 |
| VS 14/35                                  | 15          | 20   | 392.4               | 354.8 | 339.1 | 318.1 | 290.1 | 218.8 | 129.9 |
| VS 14/36                                  | 15          | 20   | 403.7               | 365.0 | 348.8 | 327.2 | 298.4 | 225.0 | 133.7 |
| VS 14/37                                  | 18.5        | 25   | 414.9               | 375.1 | 358.4 | 336.2 | 306.6 | 231.3 | 137.4 |
| VS 14/38                                  | 18.5        | 25   | 426.1               | 385.2 | 368.1 | 345.3 | 314.9 | 237.5 | 141.1 |
| VS 14/39                                  | 18.5        | 25   | 437.3               | 395.4 | 377.8 | 354.4 | 323.2 | 243.8 | 144.8 |
| VS 14/40                                  | 18.5        | 25   | 448.5               | 405.5 | 387.5 | 363.5 | 331.5 | 250.0 | 148.5 |
| VS 14/41                                  | 18.5        | 25   | 459.7               | 415.6 | 397.2 | 372.6 | 339.8 | 256.3 | 152.2 |
| VS 14/42                                  | 18.5        | 25   | 470.9               | 425.8 | 406.9 | 381.7 | 348.1 | 262.5 | 155.9 |
| VS 14/43                                  | 18.5        | 25   | 482.1               | 435.9 | 416.6 | 390.8 | 356.4 | 268.8 | 159.6 |
| VS 14/44                                  | 18.5        | 25   | 493.4               | 446.1 | 426.3 | 399.9 | 364.7 | 275.0 | 163.4 |
| VS 14/45                                  | 22          | 30   | 504.6               | 456.2 | 435.9 | 408.9 | 372.9 | 281.3 | 167.1 |
| VS 14/46                                  | 22          | 30   | 515.8               | 466.3 | 445.6 | 418.0 | 381.2 | 287.5 | 170.8 |
| VS 14/47                                  | 22          | 30   | 527.0               | 476.5 | 455.3 | 427.1 | 389.5 | 293.8 | 174.5 |
| VS 14/48                                  | 22          | 30   | 538.2               | 486.6 | 465.0 | 436.2 | 397.8 | 300.0 | 178.2 |
| VS 14/49                                  | 22          | 30   | 549.4               | 496.7 | 474.7 | 445.3 | 406.1 | 306.3 | 181.9 |
| VS 14/50                                  | 22          | 30   | 560.6               | 506.9 | 484.4 | 454.4 | 414.4 | 312.5 | 185.6 |
| VS 14/51                                  | 22          | 30   | 571.8               | 517.0 | 494.1 | 463.5 | 422.7 | 318.8 | 189.3 |
| VS 14/52                                  | 22          | 30   | 583.1               | 527.2 | 503.8 | 472.6 | 431.0 | 325.0 | 193.1 |
| VS 14/53                                  | 30          | 40   | 594.3               | 537.3 | 513.4 | 481.6 | 439.2 | 331.3 | 196.8 |
| VS 14/54                                  | 30          | 40   | 605.5               | 547.4 | 523.1 | 490.7 | 447.5 | 337.5 | 200.5 |
| VS 14/55                                  | 30          | 40   | 616.7               | 557.6 | 532.8 | 499.8 | 455.8 | 343.8 | 204.2 |
| VS 14/56                                  | 30          | 40   | 627.9               | 567.7 | 542.5 | 508.9 | 464.1 | 350.0 | 207.9 |
| VS 14/57                                  | 30          | 40   | 639.1               | 577.8 | 552.2 | 518.0 | 472.4 | 356.3 | 211.6 |
| VS 14/58                                  | 30          | 40   | 650.3               | 588.0 | 561.9 | 527.1 | 480.7 | 362.5 | 215.3 |
| VS 14/59                                  | 30          | 40   | 661.5               | 598.1 | 571.6 | 536.2 | 489.0 | 368.8 | 219.0 |
| VS 14/60                                  | 30          | 40   | 672.8               | 608.3 | 581.3 | 545.3 | 497.3 | 375.0 | 222.8 |
| VS 14/61                                  | 30          | 40   | 684.0               | 618.4 | 590.9 | 554.3 | 505.5 | 381.3 | 226.5 |

# VS 19

## TABLE OF HYDRAULIC PERFORMANCE AT 50 Hz

| Pump model | RATED POWER |      | Q = DELIVERY                              |       |       |       |       |       |       |       |       |
|------------|-------------|------|---|-------|-------|-------|-------|-------|-------|-------|-------|
|            |             |      | m <sup>3</sup> /h 0                       | 8     | 10    | 12    | 15    | 18    | 21    | 24    | 27    |
|            | [kW]        | [HP] | l/min 0                                   | 133   | 167   | 200   | 250   | 300   | 350   | 400   | 450   |
|            |             |      | H = TOTAL METERS HEAD OF WATER COLUMN [m] |       |       |       |       |       |       |       |       |
| VS 19/6    | 4           | 5.5  | 70.0                                      | 66.5  | 64.0  | 62.0  | 58.0  | 52.0  | 43.5  | 33.0  | 20.5  |
| VS 19/7    | 5.5         | 7.5  | 81.7                                      | 77.5  | 74.7  | 72.3  | 67.2  | 60.2  | 50.4  | 38.4  | 23.9  |
| VS 19/8    | 5.5         | 7.5  | 93.3                                      | 88.5  | 85.3  | 82.7  | 76.8  | 68.8  | 57.6  | 43.9  | 27.4  |
| VS 19/9    | 5.5         | 7.5  | 105.0                                     | 99.6  | 96.0  | 93.0  | 86.4  | 77.4  | 64.8  | 49.4  | 30.8  |
| VS 19/10   | 7.5         | 10   | 116.7                                     | 110.7 | 106.7 | 103.3 | 96.0  | 86.0  | 72.0  | 54.9  | 34.2  |
| VS 19/11   | 7.5         | 10   | 128.3                                     | 121.7 | 117.3 | 113.7 | 105.6 | 94.6  | 79.2  | 60.4  | 37.6  |
| VS 19/12   | 7.5         | 10   | 140.0                                     | 132.8 | 128.0 | 124.0 | 115.2 | 103.2 | 86.4  | 65.8  | 41.0  |
| VS 19/13   | 9.3         | 12.5 | 151.7                                     | 143.9 | 138.7 | 134.3 | 124.8 | 111.8 | 93.6  | 71.3  | 44.5  |
| VS 19/14   | 9.3         | 12.5 | 163.3                                     | 154.9 | 149.3 | 144.7 | 134.4 | 120.4 | 100.8 | 76.8  | 47.9  |
| VS 19/15   | 9.3         | 12.5 | 175                                       | 166   | 160   | 155   | 144   | 129   | 108   | 82.3  | 51.3  |
| VS 19/16   | 11          | 15   | 186.7                                     | 177.1 | 170.7 | 165.3 | 153.6 | 137.6 | 115.2 | 87.8  | 54.7  |
| VS 19/17   | 11          | 15   | 198.3                                     | 188.1 | 181.3 | 175.7 | 163.2 | 146.2 | 122.4 | 93.3  | 58.1  |
| VS 19/18   | 11          | 15   | 210.0                                     | 199.2 | 192.0 | 186.0 | 172.8 | 154.8 | 129.6 | 98.8  | 61.6  |
| VS 19/19   | 15          | 20   | 221.7                                     | 210.3 | 202.7 | 196.3 | 182.4 | 163.4 | 136.8 | 104.2 | 65.0  |
| VS 19/20   | 15          | 20   | 233.3                                     | 221.3 | 213.3 | 206.7 | 192.0 | 172.0 | 144.0 | 109.7 | 68.4  |
| VS 19/21   | 15          | 20   | 245.0                                     | 232.4 | 224.0 | 217.0 | 201.6 | 180.6 | 151.2 | 115.2 | 71.8  |
| VS 19/22   | 15          | 20   | 256.7                                     | 243.5 | 234.7 | 227.3 | 211.2 | 189.2 | 158.4 | 120.7 | 75.2  |
| VS 19/23   | 15          | 20   | 268.3                                     | 254.5 | 245.3 | 237.7 | 220.8 | 197.8 | 165.6 | 126.2 | 78.7  |
| VS 19/24   | 15          | 20   | 280.0                                     | 265.6 | 256.0 | 248.0 | 230.4 | 206.4 | 172.8 | 131.7 | 82.1  |
| VS 19/25   | 18.5        | 25   | 291.7                                     | 276.7 | 266.7 | 258.3 | 240.0 | 215.0 | 180.0 | 137.2 | 85.5  |
| VS 19/26   | 18.5        | 25   | 303.3                                     | 287.7 | 277.3 | 268.7 | 249.6 | 223.6 | 187.2 | 142.7 | 88.9  |
| VS 19/27   | 18.5        | 25   | 315.0                                     | 298.8 | 288.0 | 279.0 | 259.2 | 232.2 | 194.4 | 148.1 | 92.3  |
| VS 19/28   | 18.5        | 25   | 326.7                                     | 309.9 | 298.7 | 289.3 | 268.8 | 240.8 | 201.6 | 153.6 | 95.8  |
| VS 19/29   | 18.5        | 25   | 338.3                                     | 320.9 | 309.3 | 299.7 | 278.4 | 249.4 | 208.8 | 159.1 | 99.2  |
| VS 19/30   | 18.5        | 25   | 350.0                                     | 332.0 | 320.0 | 310.0 | 288.0 | 258.0 | 216.0 | 164.6 | 102.6 |
| VS 19/31   | 22          | 30   | 361.7                                     | 343.1 | 330.7 | 320.3 | 297.6 | 266.6 | 223.2 | 170.1 | 106.0 |
| VS 19/32   | 22          | 30   | 373.3                                     | 354.1 | 341.3 | 330.7 | 307.2 | 275.2 | 230.4 | 175.6 | 109.4 |
| VS 19/33   | 22          | 30   | 385.0                                     | 365.2 | 352.0 | 341.0 | 316.8 | 283.8 | 237.6 | 181.1 | 112.9 |
| VS 19/34   | 22          | 30   | 396.7                                     | 376.3 | 362.7 | 351.3 | 326.4 | 292.4 | 244.8 | 186.5 | 116.3 |
| VS 19/35   | 22          | 30   | 408.3                                     | 387.3 | 373.3 | 361.7 | 336.0 | 301.0 | 252.0 | 192.0 | 119.7 |
| VS 19/36   | 22          | 30   | 420.0                                     | 398.4 | 384.0 | 372.0 | 345.6 | 309.6 | 259.2 | 197.5 | 123.1 |
| VS 19/37   | 30          | 40   | 431.7                                     | 409.5 | 394.7 | 382.3 | 355.2 | 318.2 | 266.4 | 203.0 | 126.5 |
| VS 19/38   | 30          | 40   | 443.3                                     | 420.5 | 405.3 | 392.7 | 364.8 | 326.8 | 273.6 | 208.5 | 130.0 |
| VS 19/39   | 30          | 40   | 455.0                                     | 431.6 | 416.0 | 403.0 | 374.4 | 335.4 | 280.8 | 214.0 | 133.4 |
| VS 19/40   | 30          | 40   | 466.7                                     | 442.7 | 426.7 | 413.3 | 384.0 | 344.0 | 288.0 | 219.5 | 136.8 |
| VS 19/41   | 30          | 40   | 478.3                                     | 453.7 | 437.3 | 423.7 | 393.6 | 352.6 | 295.2 | 225.0 | 140.2 |
| VS 19/42   | 30          | 40   | 490.0                                     | 464.8 | 448.0 | 434.0 | 403.2 | 361.2 | 302.4 | 230.4 | 143.6 |
| VS 19/43   | 30          | 40   | 501.7                                     | 475.9 | 458.7 | 444.3 | 412.8 | 369.8 | 309.6 | 235.9 | 147.1 |
| VS 19/44   | 30          | 40   | 513.3                                     | 486.9 | 469.3 | 454.7 | 422.4 | 378.4 | 316.8 | 241.4 | 150.5 |
| VS 19/45   | 30          | 40   | 525.0                                     | 498.0 | 480.0 | 465.0 | 432.0 | 387.0 | 324.0 | 246.9 | 153.9 |
| VS 19/46   | 30          | 40   | 536.7                                     | 509.1 | 490.7 | 475.3 | 441.6 | 395.6 | 331.2 | 252.4 | 157.3 |
| VS 19/47   | 30          | 40   | 548.3                                     | 520.1 | 501.3 | 485.7 | 451.2 | 404.2 | 338.4 | 257.9 | 160.7 |
| VS 19/48   | 30          | 40   | 560.0                                     | 531.2 | 512.0 | 496.0 | 460.8 | 412.8 | 345.6 | 263.4 | 164.2 |
| VS 19/49   | 30          | 40   | 571.7                                     | 542.3 | 522.7 | 506.3 | 470.4 | 421.4 | 352.8 | 268.8 | 167.6 |
| VS 19/50   | 37          | 50   | 583.3                                     | 553.3 | 533.3 | 516.7 | 480.0 | 430.0 | 360.0 | 274.3 | 171.0 |
| VS 19/51   | 37          | 50   | 595.0                                     | 564.4 | 544.0 | 527.0 | 489.6 | 438.6 | 367.2 | 279.8 | 174.4 |
| VS 19/52   | 37          | 50   | 606.7                                     | 575.5 | 554.7 | 537.3 | 499.2 | 447.2 | 374.4 | 285.3 | 177.8 |
| VS 19/53   | 37          | 50   | 618.3                                     | 586.5 | 565.3 | 547.7 | 508.8 | 455.8 | 381.6 | 290.8 | 181.3 |
| VS 19/54   | 37          | 50   | 630.0                                     | 597.6 | 576.0 | 558.0 | 518.4 | 464.4 | 388.8 | 296.3 | 184.7 |
| VS 19/55   | 37          | 50   | 641.7                                     | 608.7 | 586.7 | 568.3 | 528.0 | 473.0 | 396.0 | 301.8 | 188.1 |
| VS 19/56   | 37          | 50   | 653.3                                     | 619.7 | 597.3 | 578.7 | 537.6 | 481.6 | 403.2 | 307.3 | 191.5 |
| VS 19/57   | 37          | 50   | 665.0                                     | 630.8 | 608.0 | 589.0 | 547.2 | 490.2 | 410.4 | 312.7 | 194.9 |
| VS 19/58   | 37          | 50   | 676.7                                     | 641.9 | 618.7 | 599.3 | 556.8 | 498.8 | 417.6 | 318.2 | 198.4 |
| VS 19/59   | 37          | 50   | 688.3                                     | 652.9 | 629.3 | 609.7 | 566.4 | 507.4 | 424.8 | 323.7 | 201.8 |
| VS 19/60   | 37          | 50   | 700.0                                     | 664.0 | 640.0 | 620.0 | 576.0 | 516.0 | 432.0 | 329.2 | 205.2 |

# VS 30

## TABLE OF HYDRAULIC PERFORMANCE AT 50 Hz

| Pump model                                | Vers. R | RATED POWER |      | Q = DELIVERY        |       |       |       |       |       |       |
|---|---------|-------------|------|---------------------|-------|-------|-------|-------|-------|-------|
|   |         |             |      | m <sup>3</sup> /h 0 | 15    | 20    | 25    | 30    | 35    | 40    |
|   |         | [kW]        | [HP] | l/min 0             | 250   | 333.5 | 416.5 | 500   | 583.5 | 666.5 |
| H = TOTAL METERS HEAD OF WATER COLUMN [m] |         |             |      |                     |       |       |       |       |       |       |
| VS 30/3                                   | ●       | 3.7         | 5    | 46.3                | 38.9  | 36    | 33.3  | 30.2  | 26.7  | 21.7  |
| VS 30/4                                   | ●       | 5.5         | 7.5  | 62.5                | 52.6  | 48.8  | 45.2  | 41.1  | 36.5  | 30    |
| VS 30/5                                   | ●       | 7.5         | 10   | 78.6                | 66.2  | 61.5  | 56.9  | 51.8  | 46.1  | 38    |
| VS 30/6                                   | ●       | 7.5         | 10   | 93.1                | 78.4  | 72.6  | 67.1  | 61    | 54    | 44.1  |
| VS 30/7                                   | ●       | 9.3         | 12.5 | 110                 | 92.6  | 86    | 79.7  | 72.6  | 64.6  | 53.3  |
| VS 30/8                                   | ●       | 11          | 15   | 125.5               | 105.7 | 98.1  | 90.9  | 82.7  | 73.6  | 60.5  |
| VS 30/9                                   | ●       | 11          | 15   | 140.1               | 117.9 | 109.3 | 101.1 | 91.8  | 81.4  | 66.6  |
| VS 30/10                                  | ●       | 15          | 20   | 158.2               | 133.3 | 123.8 | 114.9 | 104.7 | 93.5  | 77.3  |
| VS 30/11                                  | ●       | 15          | 20   | 173                 | 145.7 | 135.3 | 125.4 | 114.1 | 101.7 | 83.8  |
| VS 30/12                                  | ●       | 15          | 20   | 187.7               | 158   | 146.6 | 135.7 | 123.4 | 109.6 | 90    |
| VS 30/13                                  | ●       | 18.5        | 25   | 205.2               | 172.9 | 160.6 | 148.9 | 135.7 | 121.1 | 100   |
| VS 30/14                                  | ●       | 18.5        | 25   | 220                 | 185.3 | 172.1 | 159.4 | 145.1 | 129.2 | 106.5 |
| VS 30/15                                  | ●       | 22          | 30   | 237                 | 199.7 | 185.5 | 172.1 | 156.8 | 140   | 115.7 |
| VS 30/16                                  | ●       | 22          | 30   | 251.9               | 212.2 | 197.1 | 182.6 | 166.3 | 148.3 | 122.3 |
| VS 30/17                                  | ●       | 22          | 30   | 266.7               | 224.5 | 208.4 | 193   | 175.7 | 156.4 | 128.7 |
| VS 30/18                                  | ●       | 22          | 30   | 281.3               | 236.8 | 219.7 | 203.3 | 185   | 164.3 | 134.9 |
| VS 30/19                                  | ●       | 30          | 40   | 302.1               | 254.7 | 236.8 | 219.9 | 200.7 | 179.7 | 149.2 |
| VS 30/20                                  | ●       | 30          | 40   | 317.3               | 267.4 | 248.6 | 230.7 | 210.5 | 188.2 | 156   |
| VS 30/21                                  | ●       | 30          | 40   | 332.3               | 280   | 260.2 | 241.5 | 220.1 | 196.7 | 162.8 |
| VS 30/22                                  | ●       | 30          | 40   | 347.3               | 292.6 | 271.8 | 252.1 | 229.7 | 205   | 169.4 |
| VS 30/23                                  | ●       | 30          | 40   | 362.2               | 305.1 | 283.4 | 262.6 | 239.2 | 213.2 | 175.9 |
| VS 30/24                                  | ●       | 30          | 40   | 377                 | 317.5 | 294.8 | 273.1 | 248.6 | 221.4 | 182.2 |
| VS 30/25                                  | ●       | 37          | 50   | 395.2               | 333   | 309.4 | 287   | 261.5 | 233.5 | 193.1 |
| VS 30/26                                  | ●       | 37          | 50   | 410.1               | 345.5 | 320.9 | 297.5 | 271.1 | 241.8 | 199.7 |
| VS 30/27                                  | ●       | 37          | 50   | 425                 | 357.9 | 332.4 | 308.1 | 280.5 | 250   | 206.1 |
| VS 30/28                                  | ●       | 37          | 50   | 439.8               | 370.3 | 343.8 | 318.5 | 289.9 | 258.1 | 212.5 |
| VS 30/29                                  | ●       | 37          | 50   | 454.5               | 382.6 | 355.2 | 328.9 | 299.2 | 266.2 | 218.8 |
| VS 30/30                                  | ●       | 37          | 50   | 469.1               | 394.9 | 366.4 | 339.1 | 308.5 | 274.1 | 224.9 |
| VS 30/31                                  |         | 45          | 60   | 490                 | 412.9 | 383.6 | 355.8 | 324.2 | 289.4 | 239.3 |
| VS 30/32                                  |         | 45          | 60   | 505                 | 425.4 | 395.2 | 366.4 | 333.7 | 297.7 | 245.8 |
| VS 30/33                                  |         | 45          | 60   | 519.8               | 437.9 | 406.7 | 376.9 | 343.2 | 305.9 | 252.2 |
| VS 30/34                                  |         | 45          | 60   | 534.6               | 450.3 | 418.1 | 387.3 | 352.6 | 314   | 258.6 |
| VS 30/35                                  |         | 45          | 60   | 549.4               | 462.6 | 429.5 | 397.7 | 361.9 | 322   | 264.8 |
| VS 30/36                                  |         | 45          | 60   | 564.1               | 474.9 | 440.8 | 408   | 371.1 | 329.9 | 270.9 |
| VS 30/37                                  |         | 45          | 60   | 578.7               | 487.1 | 452   | 418.2 | 380.3 | 337.7 | 277   |
| VS 30/38                                  |         | 55          | 75   | 612.9               | 517.4 | 481.6 | 448.2 | 409.8 | 368.6 | 308.6 |
| VS 30/39                                  |         | 55          | 75   | 628.4               | 530.5 | 493.7 | 459.4 | 420   | 377.6 | 315.9 |
| VS 30/40                                  |         | 55          | 75   | 644                 | 543.5 | 505.8 | 470.6 | 430.1 | 386.6 | 323.2 |
| VS 30/41                                  |         | 55          | 75   | 659.4               | 556.6 | 517.9 | 481.7 | 440.2 | 395.6 | 330.5 |
| VS 30/42                                  |         | 55          | 75   | 674.9               | 569.5 | 529.9 | 492.8 | 450.3 | 404.5 | 337.7 |
| VS 30/43                                  |         | 55          | 75   | 690.3               | 582.5 | 542   | 503.9 | 460.3 | 413.3 | 344.9 |

● = Pump available in R version (AISI 904L)



# VS 46

## TABLE OF HYDRAULIC PERFORMANCE AT 50 Hz

| Pump model                                | Vers. R | RATED POWER |      | Q = DELIVERY        |       |       |       |       |       |       |       |
|---|---------|-------------|------|---------------------|-------|-------|-------|-------|-------|-------|-------|
|   |         |             |      | m <sup>3</sup> /h 0 | 25    | 30    | 35    | 40    | 45    | 50    | 55    |
|   |         | [kW]        | [HP] | l/min 0             | 416.5 | 500   | 583.5 | 666.5 | 750   | 833.5 | 916.5 |
| H = TOTAL METERS HEAD OF WATER COLUMN [m] |         |             |      |                     |       |       |       |       |       |       |       |
| VS 46/2                                   | ●       | 3           | 4    | 26.4                | 22.6  | 20.9  | 19.3  | 17.8  | 16.6  | 15.1  | 13.4  |
| VS 46/3                                   | ●       | 4           | 5.5  | 39.4                | 33.8  | 31.2  | 28.8  | 26.6  | 24.7  | 22.5  | 19.9  |
| VS 46/4                                   | ●       | 5.5         | 7.5  | 52.5                | 45    | 41.5  | 38.3  | 35.5  | 32.9  | 29.9  | 26.5  |
| VS 46/5                                   | ●       | 7.5         | 10   | 66.1                | 56.8  | 52.3  | 48.3  | 44.7  | 41.5  | 37.8  | 33.6  |
| VS 46/6                                   | ●       | 9.3         | 12.5 | 80.7                | 70    | 65.2  | 60.4  | 55.5  | 50.3  | 46    | 41.6  |
| VS 46/7                                   | ●       | 9.3         | 12.5 | 93.1                | 80.4  | 74.8  | 69.3  | 63.5  | 57.6  | 52.7  | 47.5  |
| VS 46/8                                   | ●       | 11          | 15   | 106.1               | 91.6  | 85.1  | 78.9  | 72.2  | 65.5  | 59.9  | 54    |
| VS 46/9                                   | ●       | 15          | 20   | 121.5               | 105.5 | 98.2  | 91    | 83.7  | 75.9  | 69.5  | 62.9  |
| VS 46/10                                  | ●       | 15          | 20   | 134                 | 116.1 | 108   | 100.1 | 91.9  | 83.3  | 76.2  | 68.9  |
| VS 46/11                                  | ●       | 15          | 20   | 146.3               | 126.5 | 117.6 | 109   | 99.9  | 90.5  | 82.8  | 74.7  |
| VS 46/12                                  | ●       | 18.5        | 25   | 161.3               | 140   | 130.3 | 120.8 | 110.9 | 100.6 | 92    | 83.3  |
| VS 46/13                                  | ●       | 18.5        | 25   | 173.8               | 150.5 | 140   | 129.8 | 119   | 107.9 | 98.7  | 89.2  |
| VS 46/14                                  | ●       | 18.5        | 25   | 186.1               | 160.9 | 149.5 | 138.7 | 127   | 115.1 | 105.3 | 95    |
| VS 46/15                                  | ●       | 22          | 30   | 200.8               | 174.1 | 161.9 | 150.1 | 137.7 | 124.9 | 114.3 | 103.3 |
| VS 46/16                                  | ●       | 22          | 30   | 213.2               | 184.5 | 171.5 | 159.1 | 145.8 | 132.2 | 120.9 | 109.1 |
| VS 46/17                                  | ●       | 22          | 30   | 225.4               | 194.7 | 181   | 167.8 | 153.6 | 139.3 | 127.3 | 114.8 |
| VS 46/18                                  | ●       | 30          | 40   | 243.8               | 212.3 | 197.6 | 183.1 | 168.6 | 152.9 | 139.9 | 126.8 |
| VS 46/19                                  | ●       | 30          | 40   | 256.6               | 223.1 | 207.7 | 192.5 | 177   | 160.5 | 146.9 | 133   |
| VS 46/20                                  | ●       | 30          | 40   | 269.2               | 233.8 | 217.6 | 201.7 | 185.3 | 168.1 | 153.7 | 139.1 |
| VS 46/21                                  | ●       | 30          | 40   | 281.8               | 244.4 | 227.4 | 210.8 | 193.5 | 175.5 | 160.5 | 145.2 |
| VS 46/22                                  | ●       | 30          | 40   | 294.2               | 254.9 | 237   | 219.8 | 201.6 | 182.8 | 167.2 | 151.1 |
| VS 46/23                                  | ●       | 30          | 40   | 306.6               | 265.2 | 246.6 | 228.6 | 209.5 | 190   | 173.8 | 156.9 |
| VS 46/24                                  | ●       | 37          | 50   | 322.4               | 279.8 | 260.3 | 241.3 | 221.6 | 200.9 | 183.8 | 166.3 |
| VS 46/25                                  | ●       | 37          | 50   | 334.9               | 290.3 | 270   | 250.3 | 229.7 | 208.3 | 190.6 | 172.2 |
| VS 46/26                                  |         | 37          | 50   | 347.3               | 300.7 | 279.6 | 259.3 | 237.8 | 215.6 | 197.2 | 178.1 |
| VS 46/27                                  |         | 37          | 50   | 359.6               | 311.1 | 289.2 | 268.2 | 245.7 | 222.8 | 203.7 | 183.9 |
| VS 46/28                                  |         | 37          | 50   | 371.8               | 321.3 | 298.6 | 276.9 | 253.6 | 229.9 | 210.2 | 189.6 |
| VS 46/29                                  |         | 45          | 60   | 390.1               | 338.7 | 315.1 | 292.1 | 268.3 | 243.3 | 222.6 | 201.4 |
| VS 46/30                                  |         | 45          | 60   | 402.7               | 349.2 | 324.9 | 301.1 | 276.5 | 250.7 | 229.4 | 207.4 |
| VS 46/31                                  |         | 45          | 60   | 415.1               | 359.6 | 334.5 | 310.1 | 284.5 | 258   | 236   | 213.3 |
| VS 46/32                                  |         | 45          | 60   | 427.5               | 370   | 344.1 | 319   | 292.5 | 265.2 | 242.6 | 219.1 |
| VS 46/33                                  |         | 45          | 60   | 439.8               | 380.3 | 353.5 | 327.8 | 300.4 | 272.3 | 249.1 | 224.8 |
| VS 46/34                                  |         | 55          | 75   | 469.3               | 410.9 | 383.1 | 354.8 | 328   | 297.6 | 271.9 | 248.1 |
| VS 46/35                                  |         | 55          | 75   | 482.5               | 422.3 | 393.7 | 364.6 | 337   | 305.8 | 279.4 | 254.8 |
| VS 46/36                                  |         | 55          | 75   | 495.7               | 433.7 | 404.3 | 374.4 | 345.9 | 313.9 | 286.8 | 261.4 |
| VS 46/37                                  |         | 55          | 75   | 508.9               | 445   | 414.8 | 384.1 | 354.8 | 321.9 | 294.2 | 268.1 |
| VS 46/38                                  |         | 55          | 75   | 522                 | 456.3 | 425.3 | 393.8 | 363.7 | 330   | 301.6 | 274.7 |
| VS 46/39                                  |         | 55          | 75   | 535.1               | 467.5 | 435.7 | 403.5 | 372.5 | 337.9 | 308.9 | 281.2 |
| VS 46/40                                  |         | 55          | 75   | 548.1               | 478.7 | 446.1 | 413.1 | 381.3 | 345.9 | 316.2 | 287.8 |

● = Pump available in R version (AISI 904L)



# VS 65

## TABLE OF HYDRAULIC PERFORMANCE AT 50 Hz

| Pump model | Vers. R | RATED POWER |      | Q = DELIVERY                              |       |       |       |       |       |        |        |       |
|------------|---------|-------------|------|---|-------|-------|-------|-------|-------|--------|--------|-------|
|            |         |             |      | m <sup>3</sup> /h 0                       | 40    | 45    | 50    | 55    | 60    | 65     | 70     | 75    |
|            |         | [kW]        | [HP] | l/min 0                                   | 666.5 | 750   | 833.5 | 916.5 | 1000  | 1083.5 | 1166.5 | 1250  |
|            |         |             |      | H = TOTAL METERS HEAD OF WATER COLUMN [m] |       |       |       |       |       |        |        |       |
| VS 65/2    | ●       | 3.7         | 5    | 26.8                                      | 19    | 17.3  | 16.5  | 15.7  | 14.9  | 13.9   | 12.4   | 10.5  |
| VS 65/3    | ●       | 5.5         | 7.5  | 40.4                                      | 28.8  | 26.2  | 24.9  | 23.7  | 22.5  | 21     | 18.9   | 16    |
| VS 65/4    | ●       | 7.5         | 10   | 54  | 38.4  | 35    | 33.2  | 31.6  | 30.1  | 28     | 25.2   | 21.4  |
| VS 65/5    | ●       | 9.3         | 12.5 | 68  | 48.7  | 44.3  | 41.9  | 40.1  | 38.2  | 35.6   | 32.2   | 27.5  |
| VS 65/6    | ●       | 11          | 15   | 81.2                                      | 57.9  | 52.7  | 50    | 47.7  | 45.3  | 42.3   | 38.1   | 32.3  |
| VS 65/7    | ●       | 15          | 20   | 94.9                                      | 70.1  | 65.2  | 61.7  | 58.6  | 55.7  | 52.1   | 46.1   | 39.7  |
| VS 65/8    | ●       | 15          | 20   | 107.6                                     | 79.1  | 73.5  | 69.7  | 66.1  | 62.8  | 58.5   | 51.6   | 44.3  |
| VS 65/9    | ●       | 15          | 20   | 120.1                                     | 87.8  | 81.5  | 77.4  | 73.4  | 69.6  | 64.6   | 56.8   | 48.6  |
| VS 65/10   | ●       | 18.5        | 25   | 134.5                                     | 99    | 91.9  | 87.2  | 82.7  | 78.5  | 73.2   | 64.6   | 55.5  |
| VS 65/11   | ●       | 18.5        | 25   | 147                                       | 107.8 | 100.1 | 95    | 90    | 85.4  | 79.4   | 69.8   | 59.9  |
| VS 65/12   | ●       | 22          | 30   | 161.2                                     | 118.5 | 110.1 | 104.4 | 99.1  | 94.1  | 87.6   | 77.3   | 66.3  |
| VS 65/13   | ●       | 22          | 30   | 173.7                                     | 127.3 | 118.2 | 112.2 | 106.4 | 101   | 93.8   | 82.5   | 70.8  |
| VS 65/14   | ●       | 30          | 40   | 190.3                                     | 141   | 131.1 | 124   | 118   | 112   | 104.9  | 93     | 80.2  |
| VS 65/15   | ●       | 30          | 40   | 203.2                                     | 150.2 | 139.6 | 132.2 | 125.7 | 119.3 | 111.5  | 98.7   | 85    |
| VS 65/16   | ●       | 30          | 40   | 216                                       | 159.3 | 148   | 140.3 | 133.2 | 126.5 | 118.1  | 104.3  | 89.7  |
| VS 65/17   | ●       | 30          | 40   | 228.6                                     | 168.3 | 156.3 | 148.2 | 140.7 | 133.5 | 124.4  | 109.8  | 94.3  |
| VS 65/18   | ●       | 37          | 50   | 243.4                                     | 179.8 | 167   | 158.2 | 150.3 | 142.7 | 133.3  | 117.9  | 101.5 |
| VS 65/19   | ●       | 37          | 50   | 256.1                                     | 188.8 | 175.4 | 166.2 | 157.9 | 149.9 | 139.8  | 123.5  | 106.1 |
| VS 65/20   | ●       | 37          | 50   | 268.8                                     | 197.7 | 183.7 | 174.1 | 165.3 | 156.9 | 146.2  | 128.9  | 110.7 |
| VS 65/21   | ●       | 37          | 50   | 281.4                                     | 206.5 | 191.8 | 182   | 172.6 | 163.8 | 152.4  | 134.2  | 115.1 |
| VS 65/22   |         | 45          | 60   | 297.7                                     | 219.9 | 204.4 | 193.6 | 183.9 | 174.6 | 163.2  | 144.3  | 124.2 |
| VS 65/23   |         | 45          | 60   | 310.5                                     | 229   | 212.7 | 201.6 | 191.4 | 181.7 | 169.6  | 149.8  | 128.9 |
| VS 65/24   |         | 45          | 60   | 323.2                                     | 237.9 | 221   | 209.5 | 198.9 | 188.8 | 176    | 155.3  | 133.4 |
| VS 65/25   |         | 45          | 60   | 335.8                                     | 246.7 | 229.2 | 217.3 | 206.2 | 195.7 | 182.2  | 160.6  | 137.9 |
| VS 65/26   |         | 45          | 60   | 348.4                                     | 255.5 | 237.3 | 225.1 | 213.5 | 202.5 | 188.3  | 165.8  | 142.2 |
| VS 65/27   |         | 55          | 75   | 372.8                                     | 278.8 | 259.3 | 244.7 | 233.4 | 221.6 | 208.5  | 186.4  | 161.6 |
| VS 65/28   |         | 55          | 75   | 386.1                                     | 288.5 | 268.3 | 253.3 | 241.5 | 229.3 | 215.7  | 192.6  | 166.9 |
| VS 65/29   |         | 55          | 75   | 399.4                                     | 298.1 | 277.2 | 261.8 | 249.5 | 237   | 222.8  | 198.8  | 172.2 |
| VS 65/30   |         | 55          | 75   | 412.6                                     | 307.7 | 286.1 | 270.3 | 257.6 | 244.6 | 229.8  | 204.9  | 177.4 |
| VS 65/31   |         | 55          | 75   | 425.8                                     | 317.3 | 295   | 278.7 | 265.5 | 252.2 | 236.8  | 211    | 182.6 |

● = Pump available in R version (AISI 904L)

# **VS 8" Series**

**50 Hz**

**VS 78 - 97**



# 8" STAINLESS STEEL SUBMERSIBLE PUMPS

## APPLICATION

- Municipal water works
- Water distribution and pressure boosting
- Irrigation and sprinkler systems, water treatment plants, filtration and reverse osmosis
- Industrial cooling and processing
- Mining industry, drainage and dewatering
- Fire-fighting equipment
- Fountains

## FEATURES

- Stainless steel components for durability and robustness, guaranteeing longevity and trouble-free operation. Many design technical features make this pump range very compact and extremely reliable, to ensure applications in the most complex and severe conditions.
- External stainless steel sleeve to improve stiffness and assure permanent alignment of all the components
- Motor adapter and discharge head may be removed without disturbing the impeller / diffuser stack
- Built-in check valve and over size pump shaft
- Easy maintenance without the need of special tools

## PUMP SPECIFICATION

- Flow: up to 120 m<sup>3</sup>/h at 50 Hz
- Head: up to 500 m (50 Bar) at 50 Hz
- Water temperature range: Minimum: -5 °C  
Maximum: +60 °C for all versions
- Maximum allowable amount of sand 100 g/m<sup>3</sup>
- Rotation: counter clockwise when looking into the discharge
- Pump can work continuously in vertical or horizontal position

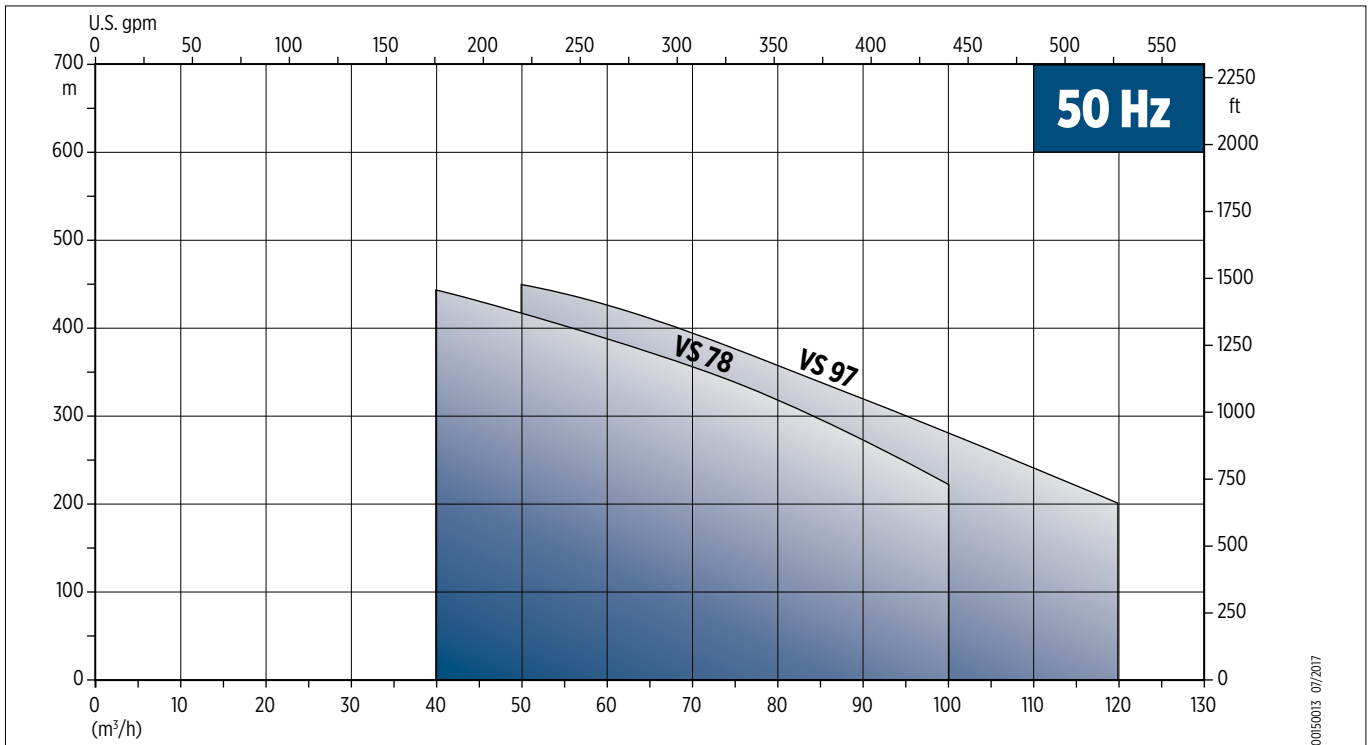
## MOTOR SPECIFICATION

- Motor adapter in compliance with NEMA standard
- For more information consult the product catalog of Submersible motors

## AVAILABLE ON REQUEST

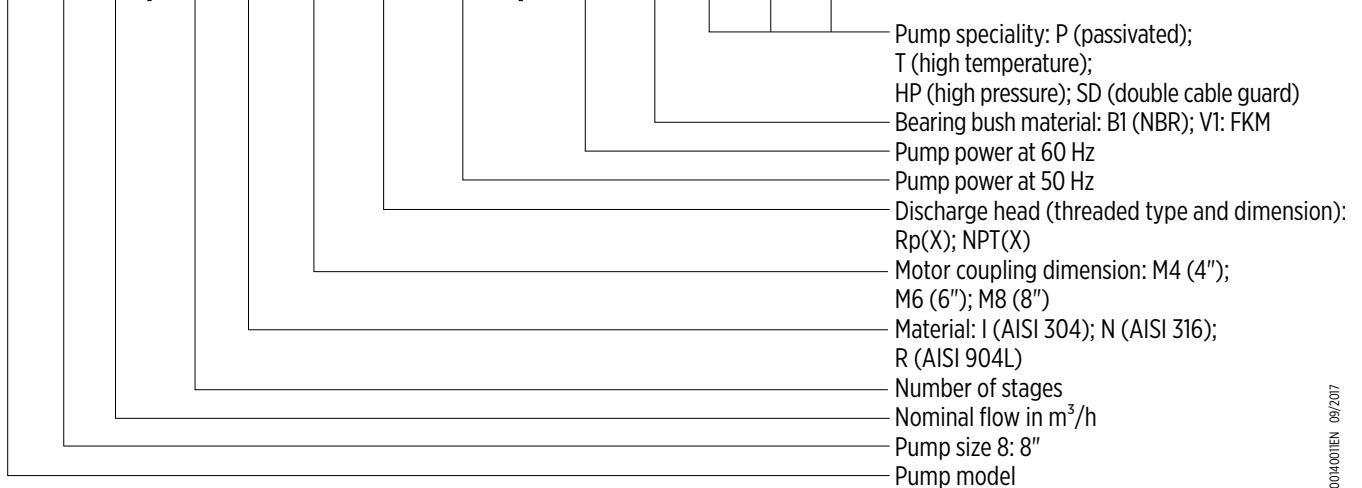
- Pump material: 316 Stainless steel (N) version (DIN/EN 1.4401)  
904L (R) version (DIN/EN 1.4539)  
See specified material variant in Materials/fluids compatibility table on page 50
- Double cable guard
- Discharge head: Rp 4" for I and N versions  
Rp 6" for R version

## FAMILY CURVES



## PUMP IDENTIFICATION CODE

VS 8 78 / 15 I M8 Rp5 5505 / 9306 B1 P HP SD



## PUMPS AND MOTORS RANGE

| Type | Versions       |                |                | Motor power range [kW] |         |
|------|----------------|----------------|----------------|------------------------|---------|
|      | I<br>EN 1.4301 | N<br>EN 1.4401 | R<br>EN 1.4539 | I e N                  | R       |
|      |                |                |                | 7.5 ÷ 93               | 30 ÷ 93 |
| VS78 | ○              | ○              | ●              | 7.5 ÷ 93               | 30 ÷ 93 |
| VS97 | ○              | ○              | ●              | 9.3 ÷ 110              | 30 ÷ 93 |

○ = Version available ● = Version available only with 6" motor coupling

## VS 78

TABLE OF HYDRAULIC PERFORMANCE AT 50 HZ

| Pump model | R Vers. | RATED POWER |      | Q = DELIVERY                              |     |     |     |      |      |      |      |      |      |      |
|------------|---------|-------------|------|---|-----|-----|-----|------|------|------|------|------|------|------|
|            |         |             |      | m <sup>3</sup> /h 0                       | 30  | 40  | 50  | 60   | 70   | 80   | 90   | 100  | 110  | 120  |
|            |         |             |      | l/min 0                                   | 500 | 666 | 833 | 1000 | 1166 | 1333 | 1500 | 1666 | 1833 | 2000 |
|            |         | [kW]        | [HP] | H = TOTAL HEAD METERS COLUMN OF WATER [m] |     |     |     |      |      |      |      |      |      |      |
| VS 78/2    | ●       | 7.5         | 10   | 40  | 38  | 35  | 32  | 30   | 29   | 24   | 20   | 18   |      |      |
| VS 78/3    | ●       | 11          | 15   | 60  | 55  | 51  | 49  | 45   | 41   | 36   | 30   | 24   |      |      |
| VS 78/4    | ●       | 15          | 20   | 80  | 74  | 70  | 65  | 60   | 55   | 49   | 41   | 32   |      |      |
| VS 78/5    | ●       | 18.5        | 25   | 99  | 92  | 88  | 81  | 75   | 69   | 60   | 51   | 41   |      |      |
| VS 78/6    | ●       | 22          | 30   | 119                                       | 110 | 104 | 98  | 89   | 81   | 71   | 60   | 49   |      |      |
| VS 78/7    | ●       | 30          | 40   | 139                                       | 130 | 122 | 114 | 105  | 96   | 85   | 72   | 58   |      |      |
| VS 78/8    | ●       | 30          | 40   | 159                                       | 149 | 140 | 131 | 120  | 110  | 98   | 82   | 67   |      |      |
| VS 78/9    | ●       | 30          | 40   | 180                                       | 168 | 158 | 147 | 135  | 123  | 110  | 92   | 73   |      |      |
| VS 78/10   | ●       | 37          | 50   | 197                                       | 183 | 172 | 160 | 148  | 134  | 119  | 100  | 79   |      |      |
| VS 78/11   | ●       | 37          | 50   | 216                                       | 202 | 190 | 176 | 162  | 148  | 130  | 110  | 87   |      |      |
| VS 78/12   | ●       | 45          | 60   | 248                                       | 232 | 219 | 205 | 189  | 172  | 153  | 131  | 106  |      |      |
| VS 78/13   | ●       | 55          | 75   | 269                                       | 252 | 237 | 221 | 205  | 188  | 168  | 142  | 115  |      |      |
| VS 78/14   | ●       | 55          | 75   | 289                                       | 271 | 256 | 239 | 220  | 201  | 180  | 153  | 123  |      |      |
| VS 78/15   | ●       | 55          | 75   | 309                                       | 290 | 274 | 255 | 235  | 215  | 192  | 165  | 132  |      |      |
| VS 78/16   | ●       | 75          | 100  | 332                                       | 311 | 294 | 275 | 252  | 231  | 208  | 177  | 143  |      |      |
| VS 78/17   | ●       | 75          | 100  | 352                                       | 330 | 312 | 291 | 269  | 246  | 220  | 188  | 151  |      |      |
| VS 78/18   | ●       | 75          | 100  | 373                                       | 350 | 330 | 309 | 284  | 260  | 232  | 198  | 161  |      |      |
| VS 78/19   | ●       | 75          | 100  | 394                                       | 370 | 348 | 325 | 300  | 275  | 245  | 210  | 170  |      |      |
| VS 78/20   | ●       | 75          | 100  | 415                                       | 389 | 368 | 343 | 316  | 290  | 259  | 220  | 179  |      |      |
| VS 78/21   | ●       | 75          | 100  | 436                                       | 409 | 385 | 360 | 331  | 304  | 271  | 231  | 189  |      |      |
| VS 78/22   | ●       | 93          | 125  | 457                                       | 428 | 404 | 378 | 347  | 320  | 284  | 243  | 198  |      |      |
| VS 78/23   | ●       | 93          | 125  | 478                                       | 446 | 421 | 394 | 362  | 332  | 297  | 254  | 207  |      |      |
| VS 78/24   | ●       | 93          | 125  | 498                                       | 467 | 440 | 411 | 379  | 348  | 310  | 265  | 216  |      |      |

● = Pump available in R (AISI 904L) version

## VS 97

TABLE OF HYDRAULIC PERFORMANCE AT 50 Hz

| Pump model | R Vers. | RATED POWER |      | Q = DELIVERY                              |     |     |     |      |      |      |      |      |      |      |
|------------|---------|-------------|------|---|-----|-----|-----|------|------|------|------|------|------|------|
|            |         |             |      | m <sup>3</sup> /h 0                       | 30  | 40  | 50  | 60   | 70   | 80   | 90   | 100  | 110  | 120  |
|            |         |             |      | l/min 0                                   | 500 | 666 | 833 | 1000 | 1166 | 1333 | 1500 | 1666 | 1833 | 2000 |
|            |         | [kW]        | [HP] | H = TOTAL HEAD METERS COLUMN OF WATER [m] |     |     |     |      |      |      |      |      |      |      |
| VS 97/2    | ●       | 9.3         | 12.5 | 42  | 41  | 39  | 36  | 32   | 30   | 29   | 26   | 22   | 19   | 15   |
| VS 97/3    | ●       | 15          | 20   | 63  | 60  | 58  | 53  | 49   | 45   | 42   | 39   | 33   | 29   | 21   |
| VS 97/4    | ●       | 18.5        | 25   | 84  | 81  | 77  | 71  | 65   | 60   | 57   | 51   | 45   | 38   | 30   |
| VS 97/5    | ●       | 22          | 30   | 104                                       | 101 | 95  | 88  | 80   | 74   | 69.5 | 62   | 55   | 46   | 37   |
| VS 97/6    | ●       | 30          | 40   | 127                                       | 122 | 115 | 107 | 98   | 90   | 84   | 77   | 68   | 57   | 46   |
| VS 97/7    | ●       | 30          | 40   | 148                                       | 143 | 135 | 123 | 115  | 106  | 99   | 90   | 79   | 68   | 52   |
| VS 97/8    | ●       | 37          | 50   | 168                                       | 160 | 151 | 140 | 130  | 120  | 110  | 100  | 88.5 | 74   | 59   |
| VS 97/9    | ●       | 37          | 50   | 188                                       | 180 | 170 | 158 | 147  | 133  | 124  | 113  | 99   | 83   | 66   |
| VS 97/10   | ●       | 45          | 60   | 219                                       | 211 | 200 | 185 | 172  | 159  | 148  | 137  | 120  | 103  | 82   |
| VS 97/11   | ●       | 55          | 75   | 241                                       | 232 | 220 | 204 | 189  | 175  | 162  | 149  | 132  | 113  | 91   |
| VS 97/12   | ●       | 55          | 75   | 262                                       | 253 | 240 | 221 | 207  | 191  | 178  | 162  | 143  | 123  | 99   |
| VS 97/13   | ●       | 55          | 75   | 284                                       | 275 | 260 | 241 | 223  | 207  | 191  | 177  | 155  | 132  | 108  |
| VS 97/14   | ●       | 75          | 100  | 309                                       | 297 | 282 | 261 | 242  | 226  | 209  | 191  | 169  | 145  | 121  |
| VS 97/15   | ●       | 75          | 100  | 330                                       | 319 | 303 | 280 | 260  | 240  | 222  | 205  | 181  | 155  | 130  |
| VS 97/16   | ●       | 75          | 100  | 352                                       | 340 | 322 | 299 | 279  | 258  | 238  | 220  | 194  | 165  | 139  |
| VS 97/17   | ●       | 75          | 100  | 373                                       | 361 | 342 | 319 | 294  | 272  | 252  | 232  | 207  | 176  | 147  |
| VS 97/18   | ●       | 93          | 125  | 398                                       | 382 | 363 | 337 | 313  | 289  | 268  | 247  | 219  | 188  | 155  |
| VS 97/19   | ●       | 93          | 125  | 419                                       | 403 | 382 | 354 | 330  | 305  | 282  | 260  | 230  | 197  | 164  |
| VS 97/20   | ●       | 93          | 125  | 440                                       | 423 | 404 | 372 | 347  | 320  | 298  | 273  | 241  | 208  | 171  |
| VS 97/21   | ●       | 93          | 125  | 462                                       | 445 | 422 | 391 | 363  | 337  | 312  | 289  | 255  | 219  | 171  |
| VS 97/22   |         | 110         | 150  | 484                                       | 466 | 442 | 410 | 381  | 353  | 328  | 301  | 267  | 229  | 190  |
| VS 97/23   |         | 110         | 150  | 507                                       | 487 | 463 | 430 | 399  | 370  | 341  | 315  | 279  | 239  | 199  |

● = Pump available in R (AISI 904L) version