

## POWER SECTION

**Model No: AT350563.0**

Revised: 9/14/2020

| Rotor Specifications |                      |
|----------------------|----------------------|
|                      | inches               |
| Overall Length       | 76.25                |
| Contour Length       | 72.25                |
| Major Diameter       | 2.157                |
| Eccentricity         | 0.134                |
| Head diameter        | 2.000                |
| Thread Form          | N/A                  |
| Weight               | 62 lbs               |
| Material             | 17-4 PH <sup>1</sup> |

| Stator Specifications  |                       |
|------------------------|-----------------------|
|                        | inches                |
| Overall Length         | 80.00                 |
| Tube OD                | 3.50                  |
| Tube ID                | 2.75                  |
| Rubber Cutback Top/End | 6.00 / 6.00           |
| Weight                 | 93 lbs                |
| Number of Stages       | 3.0                   |
| Tube Material          | 4140/4142 Alloy Steel |
| Rubber Options         | HNBR-HPT              |

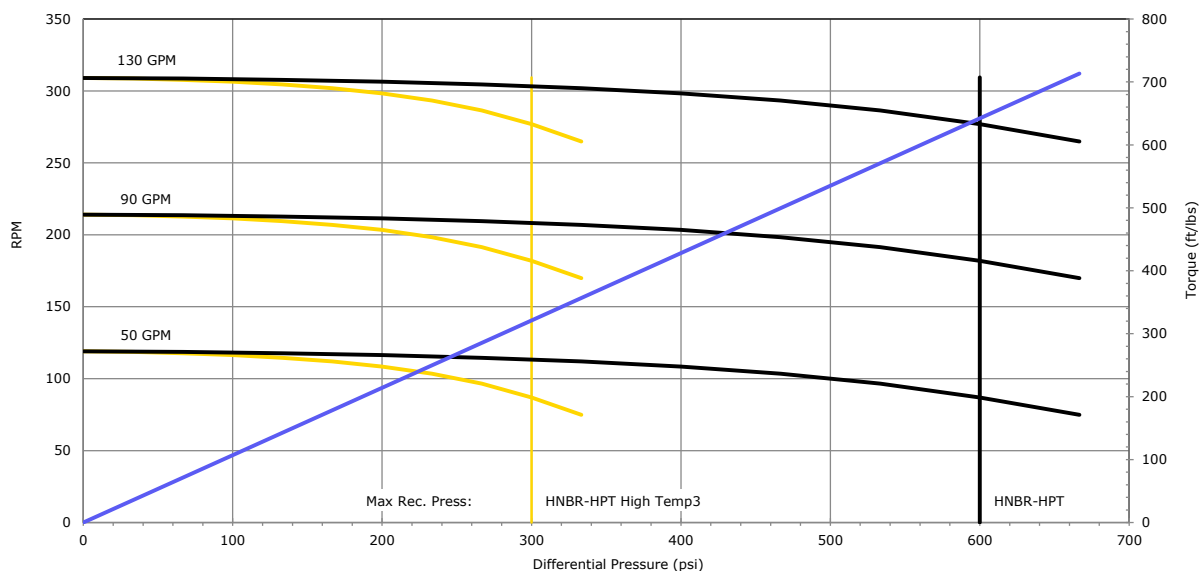
| HNBR-HPT High Temp <sup>3</sup> (in) |                    | Fits (+ Compression / - Loose) |        |        |        |                     |
|--------------------------------------|--------------------|--------------------------------|--------|--------|--------|---------------------|
| Size                                 | Minor <sup>2</sup> | 75 °F                          | 125 °F | 175 °F | 250 °F | 300 °F <sup>3</sup> |
| .5 US                                |                    |                                |        |        |        |                     |
| STD                                  | 1.901              | -0.012                         | -0.003 | 0.006  | 0.020  | 0.028               |
| .5 OS                                |                    |                                |        |        |        |                     |
| 1.0 OS                               | 1.921              | -0.032                         | -0.023 | -0.014 | -0.001 | 0.007               |
| 1.5 OS                               |                    |                                |        |        |        |                     |
| 2.0 OS                               |                    |                                |        |        |        |                     |
| 2.5 OS                               |                    |                                |        |        |        |                     |

| HNBR-HPT (in) |                    | Fits (+ Compression / - Loose) |        |        |        |                     |
|---------------|--------------------|--------------------------------|--------|--------|--------|---------------------|
| Size          | Minor <sup>2</sup> | 75 °F                          | 125 °F | 175 °F | 250 °F | 300 °F <sup>3</sup> |
| .5 US         |                    |                                |        |        |        |                     |
| STD           | 1.901              | -0.012                         | -0.003 | 0.006  | 0.020  | 0.028               |
| .5 OS         |                    |                                |        |        |        |                     |
| 1.0 OS        | 1.921              | -0.032                         | -0.023 | -0.014 | -0.001 | 0.007               |
| 1.5 OS        |                    |                                |        |        |        |                     |
| 2.0 OS        |                    |                                |        |        |        |                     |
| 2.5 OS        |                    |                                |        |        |        |                     |

| Performance Specifications |           |
|----------------------------|-----------|
| Flow Range (gpm)           | 50 - 130  |
| Speed Range (rpm)          | 120 - 310 |
| Torque Slope (ft-lb/psi)   | 1.07      |
| Rotation (rev/gal)         | 2.380     |
| Off Bottom Pressure (psi)  | 50        |

| Performance Details    |                                 |          |
|------------------------|---------------------------------|----------|
|                        | HNBR-HPT High Temp <sup>3</sup> | HNBR-HPT |
| Max Diff Press (psi)   | 300                             | 600      |
| Stall Diff Press (psi) | 450                             | 950      |
| Max Torque (ft-lb)     | 330                             | 650      |
| Stall Torque (ft-lb)   | 490                             | 1020     |

■ (HNBR-HPT High Temp<sup>3</sup>) ■ (HNBR-HPT) ■ Torque



<sup>1</sup> Coating options of chrome or tungsten carbide are available. <sup>2</sup> Vector Gauge Readings at Room Temp 75°F. <sup>3</sup> HPT High Temp parameters are recommended when BHCT exceeds 300°F. BHCT exceeding 430°F will void warranty. It is recommended to run stator for no more than 15 hours at BHCT above 375°F. Performance curves are based on new rotor and stator dimensions and for reference only. Actual performance may vary depending on fit and drilling conditions. The stall torque may exceed that specified for the connected components. Operating over the recommended limits may result in damage to the power section and connected components. Please visit [www.AbacoDrilling.com](http://www.AbacoDrilling.com) for the latest specification revisions.

### LOCATIONS

US: Headquarters 713 Northpark Central Dr., #400 Houston, TX 77073 - Tel: (281) 869-0700 - Fax: (281) 869-0701  
 US: Sales & Distribution 11308 West Interstate 20 East, Odessa, TX 79765 - Tel: (432) 248-1814  
 CANADA: Stator Manufacturing 6303-39th Street Leduc, Alberta T9E 0Z3 Canada - Tel: (780) 986-8947 - Fax: (780) 986-8842  
 DUBAI UAE: Stator Manufacturing Oilfields Supply Center B#57, Jebel Ali, Dubai UAE, P.O. Box 19909 - Tel: 971-4-870-8600

## POWER SECTION - METRIC

**Model No: AT350563.0**

Revised: 9/14/2020

| Rotor Specifications |                      |
|----------------------|----------------------|
|                      | mm                   |
| Overall Length       | 1936.8               |
| Contour Length       | 1835.2               |
| Major Diameter       | 54.79                |
| Eccentricity         | 3.40                 |
| Head diameter        | 50.80                |
| Thread Form          | N/A                  |
| Weight               | 28 kg                |
| Material             | 17-4 PH <sup>1</sup> |

| Stator Specifications  |                                |
|------------------------|--------------------------------|
|                        | mm                             |
| Overall Length         | 2032.0                         |
| Tube OD                | 88.9                           |
| Tube ID                | 69.9                           |
| Rubber Cutback Top/End | 152.0 / 152.0                  |
| Weight                 | 42 kg                          |
| Number of Stages       | 3.0                            |
| Tube Material          | 4140/4142 Seamless Alloy Steel |
| Rubber Options         | HNBR-HPT                       |

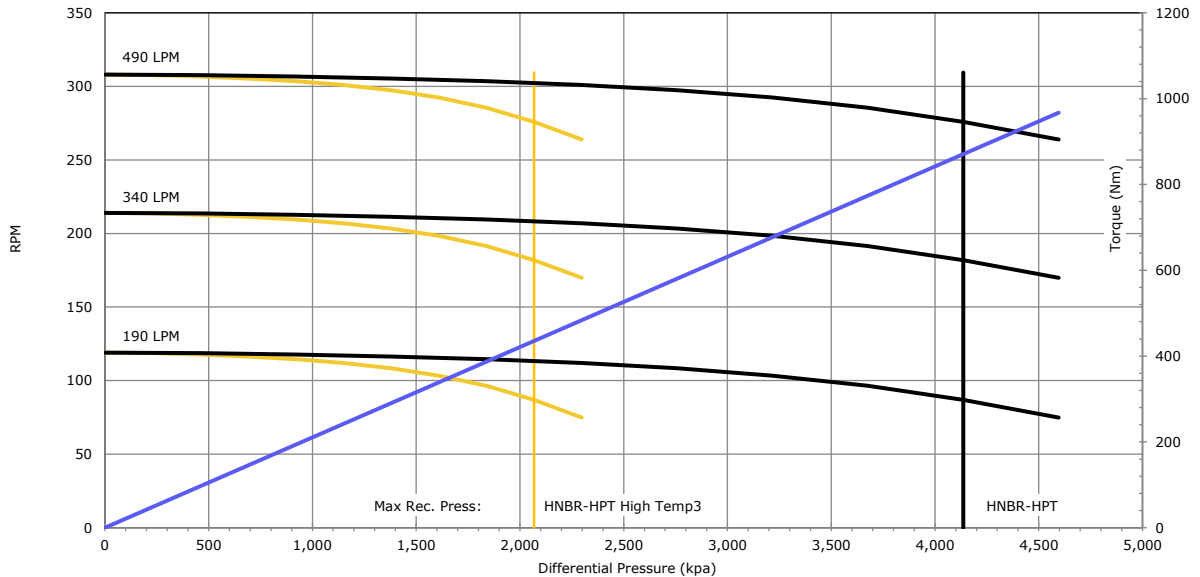
| HNBR-HPT High Temp <sup>3</sup> (in) |                    | Fits (+ Compression / - Loose) |       |        |        |                     |
|--------------------------------------|--------------------|--------------------------------|-------|--------|--------|---------------------|
| Size                                 | Minor <sup>2</sup> | 25 °C                          | 75 °C | 100 °C | 125 °C | 150 °C <sup>3</sup> |
| .5 US                                |                    |                                |       |        |        |                     |
| STD                                  | 48.29              | -0.29                          | 0.11  | 0.32   | 0.52   | 0.72                |
| .5 OS                                |                    |                                |       |        |        |                     |
| 1.0 OS                               | 48.79              | -0.80                          | -0.40 | -0.21  | -0.01  | 0.19                |
| 1.5 OS                               |                    |                                |       |        |        |                     |
| 2.0 OS                               |                    |                                |       |        |        |                     |
| 2.5 OS                               |                    |                                |       |        |        |                     |

| HNBR-HPT (mm) |                    | Fits (+ Compression / - Loose) |       |        |        |                     |
|---------------|--------------------|--------------------------------|-------|--------|--------|---------------------|
| Size          | Minor <sup>2</sup> | 25 °C                          | 75 °C | 100 °C | 125 °C | 150 °C <sup>3</sup> |
| .5 US         |                    |                                |       |        |        |                     |
| STD           | 48.29              | -0.29                          | 0.11  | 0.32   | 0.52   | 0.72                |
| .5 OS         |                    |                                |       |        |        |                     |
| 1.0 OS        | 48.79              | -0.80                          | -0.40 | -0.21  | -0.01  | 0.19                |
| 1.5 OS        |                    |                                |       |        |        |                     |
| 2.0 OS        |                    |                                |       |        |        |                     |
| 2.5 OS        |                    |                                |       |        |        |                     |

| Performance Specifications |           |
|----------------------------|-----------|
| Flow Range (lpm)           | 190 - 490 |
| Speed Range (rpm)          | 120 - 310 |
| Torque Slope (Nm/kpa)      | 0.21      |
| Rotation (rev/Liter)       | 0.6287    |
| Off Bottom Pressure (kpa)  | 350       |

| Performance Details    |                                 |          |
|------------------------|---------------------------------|----------|
|                        | HNBR-HPT High Temp <sup>3</sup> | HNBR-HPT |
| Max Diff Press (kpa)   | 2100                            | 4200     |
| Stall Diff Press (kpa) | 3100                            | 6600     |
| Max Torque (Nm)        | 500                             | 900      |
| Stall Torque (Nm)      | 700                             | 1400     |

■ (HNBR-HPT High Temp<sup>3</sup>) ■ (HNBR-HPT) ■ Torque



<sup>1</sup> Coating options of chrome or tungsten carbide are available. <sup>2</sup> Vector Gauge Readings at Room Temp 25°C. <sup>3</sup> HPT High Temp parameters are recommended when BHCT exceeds 150°C. BHCT exceeding 220°C will void warranty. It is recommended to run stator for no more than 15 hours at BHCT above 190°C.

Performance curves are based on new rotor and stator dimensions and for reference only. Actual performance may vary depending on fit and drilling conditions. The stall torque may exceed that specified for the connected components. Operating over the recommended limits may result in damage to the power section and connected components. Please visit [www.AbacoDrilling.com](http://www.AbacoDrilling.com) for the latest specification revisions.

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