# DIFFERENTIAL PRESSURE DERATING GUIDE FOR HS88 STATOR ELASTOMER

## Temperature Derating

Elastomers lose some of their mechanical strength when they get hotter. For optimum service life, the maximum Operating Pressure across the power section should be reduced (derated) as the temperature increases. The derating factor increases with the temperature so to calculate the derated Operating Pressure at given application temperature, multiply the Maximum Operating Pressure by the derating factor.

Each stator's performance specification sheet shows the maximum Working Pressure, the maximum Off-Bottom Pressure and the maximum Operating Pressure (for the power section only).

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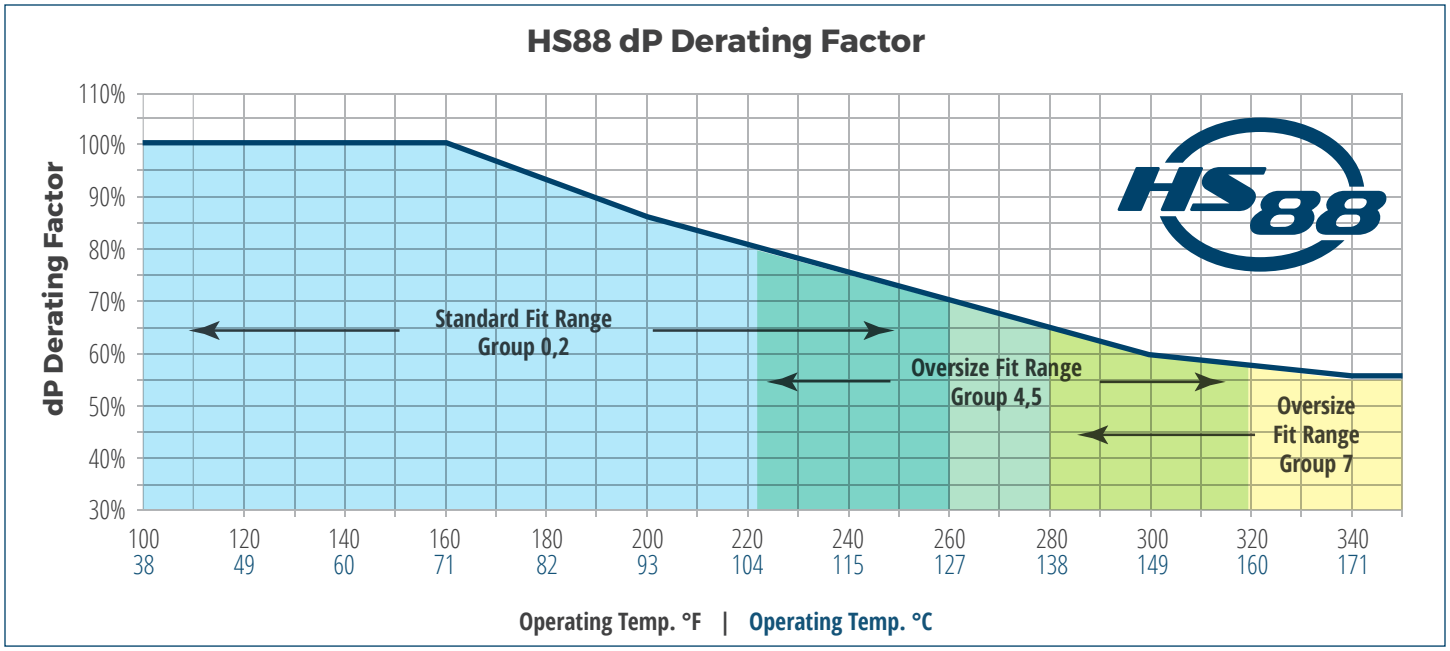
| **Maximum Working Pressure** | the maximum pressure that can be put across the power section before slip starts to occur. |
| **Maximum Off-Bottom (OFF-BTM)** | the pressure, at maximum flow rate, needed to overcome the internal mechanical and hydraulic friction in the power section. |
| **Maximum Operating Pressure** | = maximum Working Pressure – maximum OFF-BTM<br>(i.e. the remaining pressure available for the drilling operation). |

A typical derating chart is shown below.

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**For more information on PV elastomers, fit charts, derating curves, etc., please contact your local PV sales office.**


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