

ISO 13709 2nd edition (API 610 11th)

6. 3 (P.4) Terms and definitions

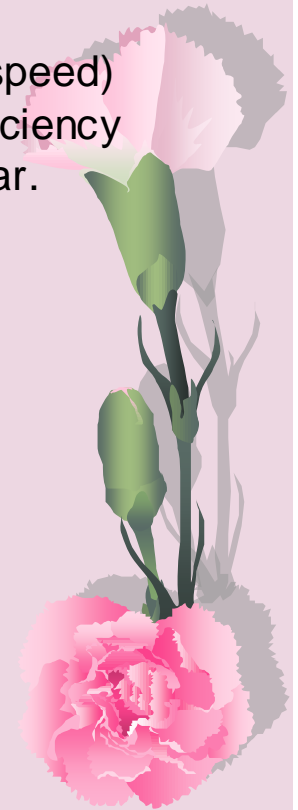
Main revised content ;

1 . From 「NPSHR」 to 「NPSH3」

The word was changed from 「NPSHR」 (Net Positive Suction Head Required) to 「NPSH3」. It changed to harmonize because it had changed like this when the examination standard of ISO changed.

2 . BEP

BEP (Best Efficiency Point) is a capacity of the best efficiency point at rated impeller diameter, and this has not changed. When calculating N_s (specific speed) and S (suction specific speed), it is added to use the capacity of the best efficiency point at maximum impeller diameter. It clarified this time though it came so far.



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Additional information ;

1 . design

The term “design” is a word used for equipment manufacturers such as pump vendors, and the customers should not put it in their specifications, it has not been changed.

For example, pump vendors design the casing with the design values of the temperature and pressure like "45bar at 350 (A point figure below) " for instance. Because an allowable tensile stress of the material decreases by becoming high temperature, the design pressure and design temperature become the relations of lower right as shown in the figure below.

Therefore, in the case when two pumps are designed and the pumps are the same size, if the design temperatures are expressed at different temperatures between the two pumps, the design pressures are different (B point).



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In addition, when producing the pump with a different material by using the same wooden/metal pattern of this pump (in the same size), the design pressure is not same because the allowable tensile stress of the material is different.

