



Figure 5. Nomogram for valve leak rate.

12.5 kgf/cm² and *D/L* from 3.2 to 4.2 with the following construction details.

- Height of (*D/L*) scale 200 mm
- Height of ($\Delta P^2/S$) scale 200 mm
- Height of ($h_1 h_2$) scale 200 mm
- Distance (Ref line and *D/L*) 75 mm

- Distance (Ref line and $h_1 h_2$) 75 mm
- Distance (*D/L* and $\Delta P^2/S$) 69.59 mm.
- Distance ($h_1 h_2$ and *Q*) 25.2 mm.

CONCLUSION

A mathematical equation for the leak rate has been evolved and the constants determined by experimental studies on models. Measured leak rates are found to almost agree with the computed leak rates. Equation for *Q* is represented on a nomogram. This nomogram provides the guideline for the design of seating parameters of the valve.

Scope for further work

Equation for *Q* has been verified for a single configuration by varying parameters. The same may be verified for different configurations and for different materials.

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1. Rocket engine valve poppet and seat design data—May 1964: Technical documentary report No. RPL-TDR-64-68, p. 451.
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3. Glen, W., Howell and Weathers, T. M., *Aerospace fluid component designers handbook*, Volume 1, Feb. 1970.
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ANNOUNCEMENT

NATIONAL SYMPOSIUM ON ANALYTICAL SPECTROSCOPY INCLUDING HYFENATED TECHNIQUES

The above Symposium is organised by the Indian Society of Analytical Scientists, Analytical Chemistry Division, Bhabha Atomic Research Centre, Bombay and Regional Research Laboratory, Hyderabad, during January 18-20, 1988 at Regional Research Laboratory, Hyderabad.

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