



NATIONAL PETROCHEMICAL COMPANY
STANDARDS

MATERIAL STANDARD
FOR
POSITIVE DISPLACEMENT PUMPS-ROTARY
NPCS-MS-RE-05
REVISION : 0

JULY 1992

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1 MODIFICATION TO API 676

The following paragraphs specifying the modifications follow the API 676 numbers and each paragraph denotes an addition, substitution or deletion.

(Substitution)

The API Standard clause is deleted and replaced by the new clause.

(Deletion)

The API Standard clause is deleted without an replacement.

(Addition)

A new clause with a new number is added

(Modification)

Part of the API Standard clause is modified, and/or a new description and/or condition is added to that clause.

2 SECTION 1 - GENERAL

1.1 SCOPE

1.1.1 This standard covers the minimum, mechanical, material and performance feature for rotary positive displacement type pumps and its accessories, used in process applications.

1.1.2 No deviation or exception from this standard shall be permitted without the written approval of the purchaser. Intended deviations shall be listed by the supplier on a separate sheet of paper and supported by reasons for consideration by the Purchaser. Unless specific exceptions and extent thereof, is recorded by vendor, in his proposal, it shall be understood that is in complete accordance with all terms and specifications to which reference is made and that he also guarantees to meet guarantee requirements as covered under standard of Hydraulic Institute.

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1.1.3 Compliance with this standard shall not relieve the supplier of the responsibility of furnishing equipment and accessories of proper design, material and workmanship, to meet the specified operation conditions.

1.1.4 Except as modified herein, the pumps shall be designed, fabricated tested and supplied strictly in accordance with:

API 676 standard

"POSITIVE DISPLACEMENT PUMP ROTARY" - 1980.

All requirement specified in the following paragraphs are additions and modifications to API 676 specification- 1980 edition, reaffirmed in December 1987.

1.2 CRITERIA OF ACCEPTANCE (SUBSTITUTION)

1.2.1 The offered pump models shall be the one from the existing regular production range of the vendor. At least one unit of the said model shall have been operating at job site and shall have completed 500 hours of successful operation minimum, at the specified operating range without any major overhaul.

1.2.2 The mechanical as well as the hydraulic performance of the model shall have been established in the shop test.

1.2.3 Reference list of models shall be submitted in line with Clause 1.2.1 stated above, alongwith the bid proposal. Reference list shall cover as a minimum following information in tabular form:
Name of client, liquid handled, capacity, discharge pressure, temperature, No. Of units, driver rating, etc.

1.2.4 Alternate Designs

The vendor may offer at his option, alternatively new/modified design of model, clearly describing the nature of modification and basis of new/modified design, supported by calculations for hydraulic and mechanical performance of the model for the consideration by Purchaser. Acceptance or rejection of such bids shall be entirely at the discretion of the Purchaser.

1.2.5 Vendor shall use SI units in all calculations and technical literatures unless otherwise specified.