# BHARAT PUMPS & COMPRESSORS LTD.

(A Government of India Undertaking)
NAINI, PRAYAGRAJ (ALLAHABAD) – 211010 UP
Phone : +91-532 – 2687269, 2687581 Fax : +91-532 – 2687075
E-mail: bpclindia@sancharnet.in


ISO 9001
ISO 14001
OHSAS 18001

## CALLING OF OFFERS FOR APPOINTMENT OF VALUER FOR TECHNOLOGY(INTANGIBLE ASSETS/INTELLECTUAL PROPERTY)

| | |
|---|---|
| EOI Reference No. | BPC/MA/V/2022 |
| Date of EOI issue | 25.04.2022 |
| | |
| Last date and time for receipt of bids | 10.05.2022 (13.00 hrs) |
| Date and time for opening of bids | 10.05.2022 (14.30 hrs) |
| Ernest Money Deposit | Rs 10000=00 |
| Mode of bid submission | Two bid system<br>Part A (Techno-commercial unpriced bid)<br>Part B (Commercial priced bid) |
| Bid submission medium | Bids to be submitted in hard copy through post /courier only |
| Address for meeting / communication | Purchase Department<br>Bharat Pumps and Compressors Limited,<br>Naini, Prayagraj (Allahabad) U.P.<br>Pin : 211010<br>Tel.: +91-532-2687269, 2687581<br><br>Website: www.bharatpumps.co.in, bpcnaini.co.in |
| Contact person for pre-bid meeting / any clarification | Mr. P.G. Chaudhury,<br>IC (Materials Management)<br>Mob: +91-99355 47051<br>E-mail ID :pulak@bharatpumps.co.in |

**CONTENTS**

## 1. INTRODUCTION

Bharat Pumps and Compressors Limited (BP&CL) is a Public Sector Undertaking under the control of Ministry of Heavy Industries & Public Enterprises, Govt. of India, situated at Naini, Prayagraj (Allahabad). The company is an ISO 9001:2008, ISO 14001:2004 & OHSAS 18001:2007 certified and API licensed heavy industry engaged in manufacturing and supply of heavy duty pumps & compressors and high pressure seamless and CNG gas cylinders / cascades to cater the needs of oil exploration & exploitation, refineries, petro-chemicals, chemicals, fertilizer and downstream industries.

BP&CL is an unlisted company with 100% shareholding of Government of India and it has been closed by Government of India by circular in December,2020 and all employees are separated by VRS/VSS in June,2021.Already all plant & machineries have been sold.

## 2. INVITATION FOR OFFERS

**2.1** TECHNOLOGY(Intellectual properties0 covered under this tender are available at BP&CL Naini Prayagraj.

**2.2** BP&CL intend to appoint valuer for determination of fair market valuation of its Technology(Intangible assete/Intellectual property). As such invites expression of interest / offers from eligible bidders for entering into Contract for valuation of Technology.

**2.3** Tender notice & tender documents are available on our website www.bharatpumps.co.in, bpcnaini.co.in. All future Information viz. corrigendum /addendum/ amendments etc. for this Tender shall be posted on same place.

**2.4** Any bidder, who meets the eligibility criteria as per bid documents and intent to quote, may download the bidding documents from our website www.bharatpumps.co.in, bpcnaini.co.in and submit the bid completed in all respect as per terms & conditions of bid documents.

**2.5** Interested eligible bidders may show their interest /submit their offers to the address given below on or before bid opening due date & time duly superscribed on the cover "Appointment of valuer for Technology".

Purchase Department
Bharat Pumps and Compressors Limited,
Naini, Prayagraj (Allahabad) U.P.
Pin: 211010
Tel.: +91-532-2687269, 2687581
E-mail ID: pulak@bharatpumps.co.in,

**2.6** Bids received in sealed envelope will be considered & opened in the presence of the bidders or their authorized representatives, who choose to attend.

**2.7** Bids submitted late or through electronic media may not be accepted & liable for rejection.

**2.8** The bidder shall bear all costs associated with the preparation, submission of bid, participation in bidding process. BP&CL in no way will be responsible or liable for these costs regardless of the conduct or outcome of the bidding process.

**2.9** In the event of any of the above dates being declared as a holiday/closed holiday for the BP&CL, the bids will be received/opened on the next working day at the appointed time.

## 3. SCOPE OF WORK

**3.1** The valuer to be engaged will prepare necessary documents / reports to achieve satisfactorily, the objectives of the Assignment. These activities, shall be carried out in due consultation with BP&CL, which will be the nodal agency for facilitating the assignment. The purpose is Company who will procure Technology will be legally entitled to use BPCL product line,drawings,documents, knowhow and protection in terms of legal, economic & moral rights of BPCL intellectual property.

**3.2** In accordance with the foregoing requirements, the Scope of Work Technology valuation enclosed at Annexure-A (Technology)..

**3.3** The broad scope of work for the Asset Valuer is to carry out valuation of Technology related to manufacturing of Reciprocating Pump, Centrifugal Pump, Reciprocating Compressor & Gas cylinders etc

**3.4** In estimating the market value for the specified Technologythe Valuer shall:

a. Value the property by generally accepted valuation methods
b. Suitably provide the justification / logic / assumption for selecting the appropriate method for valuation.
c. State any assumptions or limiting conditions that may affect the analysis, opinions and conclusions.
d. Provide sufficient information to permit those who read and rely on the report to fully understand the data, reasoning, analyses and conclusions underlying the Technolgy Valuer`s findings, opinions and conclusions.
e. Completely and understandably set forth the valuation report in a manner, which will be comprehensive, accurate, and not in any manner misleading.
f. The Technology Valuer will be responsible for generating a draft report (without valuation) and making detailed presentations on the subject matter as may be required by the Government / BP&CL. Post presentation, the Valuer, shall, if required, incorporate the suggestions as may be requested by the Government / BP&CL or provide any other additional clarification that may be required. The final deliverable shall be the Final Valuation Report, incorporating the changes/ modifications as may be suggested.

3.5 In addition to above scope of work, the Valuation Report should, *inter alia*, provide the following:

a) Inception Report including approach & Methodology followed.
b) Valuer assessment on the aspects mentioned above and other considerations taken in valuation of assets and Technology and how these have been considered in arriving at the values.
c) Value of the Technology covering all aspects in present scenario of the company.

3.6 Provide support relating to valuation issues, if any,

## 4. TERMS AND CONDITIONS

### 4.1 Eligibility criteria for bidders

The valuation should be done by professionally qualified independent Valuer. Valuer to be appointed must act with independence, integrity and objectivity. It will undertake all valuation works without being influenced by anybody. The Bidder should meet out the following eligibility criteria:

a) The Technology Valuers should having experience in Technology valuation(intellectual property) in assignments with Ministries/Government Departments/Public Sector Undertakings of Government (State/Central/Any other reputed private organization).

b) The Technology Valuer must have a professionally qualified team to carry out valuation of intangible asset(intellectual property assets).

c) An undertaking shall be obtained from the Technology Valuer before appointment that the Valuer/Company/Individual/Partnership is not blacklisted, no investigation is pending and no court case is pending against it.

d) Bidders should have successfully completed valuation of Technology of at least one similar type / nature of any manufacturing plant in the last 5 financial years.

e) The Bidder should be fully aware of these Technologies related valuation of a Company.

f) Bidder should furnish the documentary evidences in support of above eligibility criteria.

g) Consortium bids will not be allowed.

### 4.2 Submission of bids

The Bids should be submitted in sealed separate envelopes under two-bid system as follows
Part A: Technical bid along with unpriced commercial bid.
Part B: Priced commercial bid

Above two separate sealed envelopes to be kept & sealed in another bigger envelop before submission. Tender reference number & Date must be superscribed each envelop.

### 4.3 Bid prices

**A)** The bidder shall indicate Total lump sum price price of Technology(Intellectual property) schedule

**B)** B) Prices basis should be as follows

a) The price of the goods quoted should be Ex-BPCL Naini, basis including all expenses.

b) Any sales or other taxes/duties including GST, which will be payable on the goods should be indicated separately.

c) Any element of cost, taxes, duties, levies, etc. not specifically indicated in the bid, shall not be paid by the BP&CL.

d) One copy of price format without price to be given separately with Technical bids.

### 4.4 Period of validity of bids

a) Bids shall remain valid for acceptance for 90 days after the date of bid opening. A bid valid for a shorter period may be rejected as non responsive.

b) In exceptional circumstances, BP&CL may solicit the bidder's consent to an extension of the period of bid validity up to a specified period. A bidder agreeing to this request, will not be required nor permitted to modify its price bid.

**4.5 Security deposits**

a) Requirement of Ernest Money deposit / Bid security
Bidders have to submit EMD Rs 10000=00

b) Requirement of Security Deposit / Bank guarantee
Successful bidder has to submit a security deposit @10% of order value in form of bank guarantee.

**4.6 Taxes & Duties**

a) Goods & Services Tax Registration number etc. to be mentioned in bid.
b) All applicable taxes & duties to be mentioned in bid
c) All applicable taxes & duties may be paid according to Government of India schedule.

**4.7 Bid opening**

a) Bids received in sealed envelope will be considered & opened in the presence of the bidders' /authorized representatives, who choose to attend.

b) Bids submitted through electronic media may not be considered for opening.

c) Bids submitted in single bid system or techno-commercial & priced bid in single envelop may not be considered.

d) First of all, Techno-commercial unpriced bid (Part A) will be opened & evaluated. After acceptance of Part A, Priced bid (Part B) will be opened. Unpriced commercial format to be attached in technical bid

**4.8 Evaluation criteria**

a) Criteria of evaluation of offer shall be on NET cost to BP&CL basis.

b) Rate contract shall be finalized on techno-commercially acceptable lowest bidder categories in totality. BP&CL's decision in this regard shall be final and binding to the bidder.

c) The latest Inco-Terms shall be considered to interpret the commercial terms & conditions.

**4.9 Deviations**

Any deviation to tender requirements shall be furnished separately along with bid.

**4.10 Applicable Law**

The contract / order shall be interpreted in accordance with the laws of India.

**4.11 Payment**

A) The payment of the fee to the selected bidder shall be made as under
   i) 100 % payment shall be made after acceptance of final report by BP&CL/Government of India..
   ii) Asset Valuer will raise the invoice in triplicate

B) Valuer shall send its claim (with relevant documents, as required) to the appropriate paying authority. Before claiming any payment, the valuer shall ensure that all the contractual obligations for claiming that payment have been duly fulfilled.

C) Bidders to specifically confirm in their bid for acceptance of payment, failing which their bid may not be considered for evaluation / suitably loaded.

**4.12 Work completion period**

The Bidder is required to complete the aforesaid work, including submission of the valuation report, within a period of 30 days from the date of issue of Letter of Intent (LOI) / Contract / Work Order or such extended time as may be allowed by the BP&CL / Government. Bidders may quote their best delivery schedule accordingly.

Any delay in completion of the assignment shall make the bidder liable for deduction in their payment / forfeiting the Performance Guarantee. Notwithstanding the submission of the valuation report, the BP&CL / Government shall have the right to call upon the Valuer for making presentations on its report before any committee or officials of the BP&CL / Government and to respond to any queries / clarifications as the BP&CL / Government may seek and to provide support to the BP&CL / Government on valuation issues at any time.

**4.14 Contract period**

Contract / Work Order shall initially be issued for agreed period from the date of award of contract on firm & fixed price basis. Bidders to confirm the acceptance of same..

**4.15 General notes**

a) BP&CL reserves right to order Technology related work on single or multiple bidder
b) Alteration to the conditions of any terms & conditions can be done by BP&CL at any time before tender opening date & time. Such changes, if any, would be communicated in writing.
c) The award of work on the successful bidder/ Valuer may be terminated by the Government of India, if, the said bidder becomes bankrupt or is dissolved, or ceases to exist or if the bidder unreasonably delays in carrying out the work entrusted to it.
d) Any attempt of unlawful / unethical activity at any stage, force for disqualification.

**4.16 Force majeure**

If at any time of this tender / contract, the performance in whole or part, by either party of obligations under this tender / contract shall be prevented or delayed by reason of any war, hostilities, acts of public enemy, civil commotion, sabotage, fire, explosion, epidemics, quarantine, restrictions or act of GOD, then provided notice of happening of any such events is given by either party to other within one week from date of occurrence thereof, neither party shall reason of such events to be entitled to terminate this tender / contract nor shall either party have any such non performance and delay is resumed as soon as practicable after such events have come to an end or ceased to an exit. If the performance in whole or part of any obligation under this tender / contract prevented or delayed by reason of such events, claim for extension of time shall be granted for period considered reasonable by the purchaser subject to prompt notification by the seller to purchased of the particulars of the events and supply to purchaser if required of any supporting evidence. Any waiver of time in respect of partial submission / supply shall not be deemed to be a waiver of time in respect of remaining submission / deliveries.

**4.17 Resolution of disputes**

i) If any dispute or difference of any kind shall arise between BP&CL and the valuer in connection with or arising out of the contract / order, the parties shall make every effort to resolve the same amicably by mutual consultations.

ii) If, after thirty (30) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the BP&CL or the valuer may give notice to the other party of its intention to commence, arbitration, as hereinafter provided, as to the matter in dispute and no arbitration in respect of this matter may be commenced unless such notice is given.

iii) Any dispute or difference, in respect of which a notice of intention to commence arbitration has been given, shall be finally settled by arbitration. The decision of majority of arbitrators shall be final and binding upon both the parties.

iv) The venue of arbitration shall be the place from where the contract is issued and its jurisdiction shall be courts of Prayagraj (Allahabad), India only to deal with and decide any legal matter of dispute whatsoever arising out of this contract.

v) In the event of any dispute or difference of any kind, whatsoever between parties of contract arising out of or in connection with or touching the contract at any time hereafter the same, unless the decision of some officer/person becomes final on the point, the same shall be referred for adjudication to the sole arbitrator to be nominated by BP&CL and the award made by the arbitrator shall be final, conclusive and binding on the parties.

## 5. APPENDIX

### 5.1 TECHNICAL EVALUATION SHEET

The technical evaluation of the eligible bidders shall be based on the following criteria. Each eligible bidder will be required to make a presentation before the Government.

| Category | Particulars | |
|---|---|---|
| A | Experience and capability | |
| | (i)Profile of the organization | |
| | (ii) Capability, capacity, experience and expertise in handling similar assignments | |
| | (iii) Details of domestic/ international assignments handled | |
| | (iv) Demonstrate ability to work with the Organization and in coordination with other intermediaries as part of a team | |
| B | Infrastructure and Manpower | |
| | (i) Details of infrastructural facilities like offices, manpower, etc. | |
| | (ii) Detailed profile of the core and support teams (with CV"s of each team member detailing qualification and relevant experience) that will be deployed on the assignment in the event of selection | |
| C | Strategy for Valuation | |
| | (i) Indicate strategy for valuation and demonstrate ability | |
| | (ii) Milestones to deliver in a tight timetable | |
| | (iii)Committing adequate personnel to meet the timeline | |
| | | |
| | Total | |

### 5.2 TECHNICAL PARTICULARS

| | | |
|---|---|---|
| 1 | Bidder name, address & contact detail | |
| 2 | Contact persons & contact detail | |
| 3 | Details confirming that the bidder is a Reputed Valuer registered with Central or State Government authorities / RBI / Public Sector Banks / and other authorities to fulfill the requirement of valuation | |
| 4 | Confirm that you meet the eligibility criteria and how (attach supporting documents). | |
| 5 | State whether details of assignments done are enclosed. Also please state whether *relevant* documents such as copy of Work Orders secured and performance certificates, including value of work executed, in support of experience enclosed. | |
| 6 | State whether affidavit-cum-undertaking relating to no conviction and non-conflict enclosed. | |
| 7 | Confirm that all technical and commercial terms and conditions are acceptable. | |
| 8 | Audited financial statement of last three financial years in support of turnover of the company | |
| 9 | Supporting documents in support of experience (Certificate of satisfactory completion of work | |
| 10 | Details of infrastructural facilities like office, manpower, etc. | |
| 11 | Detailed profile of the core and support teams (with CV"s of each team member detailing qualification and relevant experience) that will be deployed on the assignment in the event of selection | |
| 12 | Milestones & timelines of completed assignments of similar nature. | |
| 13 | Any other information the bidder may desire to furnish: | |

Note: All supporting documents should be self-attested.

Verified that to the best of my knowledge and belief all the above information is correct and nothing has been concealed. Seal and signature of the Valuer.

PRICE –QUOTATION.(ON CO. LETTER HEAD)

Sub; Appoinment of Valuer for Technology part(Intellectual property)

With reference to Tender Reference No.

,we are hereby submitting our quotation for valuation of Technology(Intellectual property) of Bharat Pumps & Compressors Ltd, Naini, Prayagraj

We hereby agree to scope of works, terms & conditions

Our best professional fees for the completion of scope of work for Technology valuation is as below:

| Component | Fees(in INR) |
|---|---|
| Professional Fees | |
| IGST | |
| Total Fees | |

The fees is inclusive of all i.e. cost of personnel,travel,administrative,incidental,out of pocket expenses, consultants etc.

Yours sincerely

Name:

Designation.

## Background,

### Introduction

Bharat Pumps and Compressors Limited (BPCL), a Mini Ratna Public Sector Undertaking under the control of Ministry of Heavy Industries & Public Enterprises, Government of India, (GoI) was set up in the year 1970 at Naini, Allahabad, Uttar Pradesh as an import substitution unit for manufacturing sophisticated process pumps and compressors for core sector industries, which were hitherto being imported. The company is engaged in manufacture and supply of heavy duty pumps & compressors and high pressure seamless and CNG gas cylinders/cascades to cater to the needs of oil & gas exploration & exploitation, refineries, petro-chemicals, chemicals, fertilizer and downstream industries.

### Vision Statement

To become an Indian MNC in the field of fluid handling, gas compression, gas storage equipment, services and project management..

### Products and services

| Particular | Installed capacity in two shifts (Numbers) |
|---|---|
| Centrifugal Pumps (CP) | 185 |
| Reciprocating Pumps (RP) | 98 |
| Reciprocating Compressors (RC) | 23 |
| Industrial Gas Cylinders (GC) | 48,000 |

### Technology Absorption

BPCL has absorbed technology from following world's renowned manufactures through technology transfer collaboration:

| Sl. No. | Product | Collaborator |
|---|---|---|
| 1. | Centrifugal Pumps | Pompes Guinard, France |
| 2. | Reciprocating Pumps | Oil Well, USA |
| 3. | Reciprocating Compressors | NuovoPignone, Italy |

| Sl. No. | Product | Collaborator |
|---|---|---|
| 4. | Ammonia & Carbamate Pumps | URACA, Germany |
| 5. | Cementing Units | B. J. Hughes, USA |
| 6. | Sucker rod pump | Rom Consultant, Romania |
| 7. | High pressure Industrial Gas Cylinder | Showa Koatsu, Japan |

Its collaborators had vast experience in the field of rotating equipment and BPCL has completely absorbed technology for execution of orders for its complete range of products and its engineering division has been regularly upgrading the technology and design to meet upgraded, International code requirement.

In all cases, the collaboration period has lapsed, but BPCL has already absorbed c1ompletely the technology and is meeting customer's requirements with present technology.

BPC used to do a lot of Business in spare parts to various customers as OEM like ONGC, IOCL,NPCIL etc.

All the drawings are there in pumps & Compressors design section in cabinet, Almira, Documentation section & Technology section in BPC.

Though plant & machinery have been sold, the design ,drawings,are kept intact for selling it to perspective buyer for them to operate as OEM and do business with our past customers.

## Inter-firm comparison

### Introduction

BPCL is engaged in manufacturing of heavy duty specialized pumps and compressors and only PSUwhich manufactures such products. However, there are some Trans National Corporations (TNCs) with manufacturing facilities in India who produce such products and are direct competitors to BPCL.

| Sl. No. | Product | Nearest Competitor |
|---|---|---|
| 1 | Reciprocating compressors | Atlas Copco (India) Ltd., Ingersoll Rand India Private Limited |
| 2 | Pumps | KSB Pumps Ltd., Kirloskar Brothers Limited |

**Office Locations of competitors**

| Company | Established | Unit | Nos. | Office Location |
|---|---|---|---|---|
| Atlas Cocpo (India) Ltd. | 1960 | Corporate office | 1 | Pune |
| | | Manufacturing plants | 3 | Pune, Nashik and Hyderabad |
| | | Other offices | 22 | Across India |
| | | Overseas Offices | More than 180 countries | - |
| Ingersoll Rand India Private Limited | 1921 | Corporate office | 1 | Kolkata |
| | | Regional Offices | 15 | Ahmedabad, Bangalore, Chandigarh, Chennai, Coimbatore, Ghaziabad, Gurgaon, Indore, Jamshedpur, Kolkata, Mumbai, Nagpur, Pune, Secunderabad and Surat |
| | | Manufacturing plants | 2 | Ahmedabad, Kancheepuram (TN) |
| | | Inspection Offices | | Across India at all major locations |
| | | Overseas Offices | 6 | Abu Dhabi, London, Malaysia, Shanghai, Italy, Caracaz(Venezuela) |
| | | Overseas Offices | 6 | Abu Dhabi, London, Malaysia, Shanghai, Italy, Caracaz(Venezuela) |
| KSB Pumps Ltd. | 1960 | Registered office | 1 | Mumbai |
| | | Zones | 4 | East, West, South and North |
| | | Manufactories plants | 5 | 2 in Pune, Ahmednagar, Nashik and Coimbatore |
| | | Misc. | - | 15 branches, over 800 authorized dealers, 4 service stations, 150 authorized service centers |
| Kirloskar Brothers Limited | 1901 | Corporate office | 1 | Pune |
| | | Plants | 6 | Kirloskarvadi, Pune; Dewas, MP; Shirwal, Maharashtra; Kondhapuri, Maharashtra; Coimbatore and Ahmedabad |

Source: Company annual reports

## STRENGTHS

### Premier Indigenous Manufacturer of Heavy Duty Pumps and Compressors

- BPCL is a premier manufacturer of pumps and compressors which are supplied to sensitive sectors like nuclear energy, petroleum refining and oil & gas exploration. By meeting high safety and quality requirements of its clients in these sectors, it **enjoys strong brand equity**. Further, **it is the sole Indian PSU which manufactures such products.**
- With its long experience spanning more than four decades, BPCL has created a niche for itself. It has served extensively to companies in sectors which are critical to fast growing countries like India and requires premium products which run for years without any break down or huge maintenance; thus lowering the down time, increasing effective work hour and thus productivity and giving excellent operational performance.

### Reputed Specialized Product Manufacturer

- BPCL is a recognized as a valued partner by companies like IOCL, ONGC, BPCL (Bharat Petroleum), HPCL, NPCIL etc. It also has high capabilities for Quality Assurance Services where it provides maintenance services to its clients.

# BHARAT PUMPS & COMPRESSORS LTD.
# NAINI-ALLAHABAD

## BUSINESS PROFILE

### 1. Centrifugal Pumps:

BPC offers a wide range of Centrifugal Pumps conforming to latest API 610 edition for Refineries & Petroleum industry and also for Nuclear Power Plants.

| | | |
|---|---|---|
| Range : | Maximum Power | 2500 KW |
| | Maximum Pressure | 140 kg/cm2 |
| | Maximum Capacity | 12,000 M3/Hr. |

Pumps are suitable for handling fluids such as Dimensional Water, Hydrocarbon, Neptha, LPG, Carbonate Solution, Boiler Feed Water, Benefield Solution, Alkaline and Acidic Solution, Ammonia Liquor and Petrochemicals.

### 2. Reciprocating Pumps

BPC designs and manufactures custom build Reciprocating Pumps conforming to API 674 latest editions available for wide range of applications.

| | | |
|---|---|---|
| Range : | Maximum Power | 1700 HP |
| | Maximum Pressure | 675 kg/cm2 |
| | Maximum Capacity | 315 M3/Hr. |

Pumps are suitable for handling Drilling Mud, Cementing Slurry, Crude Oil Steam Condensate, Heavy Water, Fatty Acids, Ammonia Carbamate, Liquid Amonia, and Liquid Wax Effluent Water.

### 3. Reciprocating Compressors

BPC designs and manufacture custom build Reciprocating Compressors as per API 618 latest edition.

| | | |
|---|---|---|
| Range : | Maximum Power | 25000 KW |
| | Maximum Pressure | 450 Kg/Cm2 |
| | Maximum Capacity | 70,000 NM3/Hr. |

Compressors are suitable for handling gases like Air, Nitrogen, Carbon Dioxide, Hydrogen, Hydrocarbons, Ammonia Systhesis Gas, Coal Gas, Natural Gas, LPG etc.

## 4. High Pressure Industrial Seamless Gas Cylinder

BPC manufactures High Pressure Industrial Gas Cylinders for storage of Gases like Oxygen, Argon, Hydrogen, Nitrogen, Methane, Helium, Air, Carbon Dioxide, Nitrous Oxide etc.

| | | |
|---|---|---|
| Range | : | Upto 62 Litres Water Capacity. |
| Filling Pressure | : | upto 280 Kg / Cm2 |
| Code | : | IS 7285 (Part II & Part I) 2004 / ISO 9809 Part I. |

## 5. CNG on Board Cylinders:

BPC manufactures wide range of high quality Seamless steel CNG Cylinders for almost all kinds of vehicle such as three wheelers, cars, buses and various other types of vehicles cylinders.

| | | | | |
|---|---|---|---|---|
| Range | : | Water Capacity | : | 20 to 200 Ltrs. |
| | | Diameters | : | 232 mm to 406 mm |
| | | Filling Pressure | : | 204 kg/cm2 |
| | | Test Pressure | : | 340 kg/cm2 |
| | | Code | : | IS 15490: 2004 / ISO 11439: 2000<br>Or any international standard<br>Under third party inspection agency. |

## 6. CNG Cascades :

IS 7285 (Part II)

| | | | | |
|---|---|---|---|---|
| Range | : | Water Capacity | : | 500 ltrs. To 45,000 ltrs. |
| | | Filling Pressure | : | 255 kg/cm2 |
| | | Test Pressure | : | 435 Kg/cm2 |
| | | Code | : | IS 7285 (Part II): 2004 |

# ORDERS FOR CENTRIFUGAL PUMPS SUPPLIED BY BHARAT PUMPS COMPRESSORS LTD

## SPECIFICATIONS FOR CENTRIFUGAL PUMP ORDERS

| CLIENT/ | PUMP TYPE | QTY | LIQUID | RPM | Pump | Driver | API Plan | Matl. | Metallurgy | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PROJECT | | | *H2S APPL | SYN. | BKW | (KW) | F/C PLAN | Code | Case/ W/R | Imp./ W/R | Shaft |
| IOCL HALDIA | VM23X18-5STG | 1 | Ms/ker/Diesel | 3000 | | 11 | 13/61/ | S5 | WCB/CA40 | WCB/- | AISI 4140 |
| IOCL HALDIA/ EIL | KSMK1.5X2.5X10-2ST | 2 | DAO | 3000 | 11.3 | 18.5 | 21/61 | S5 | WCB/CA40 | WCB/CA40 | AISI 4140 |
| IOCL HALDIA/ EIL | SMK2X3X12 | 2 | HC* | 3000 | 9.9 | 22 | 11/52/61 | S6 | WCB/CA40 | CA6NM/CA40 | AISI 410 |
| IOCL HALDIA/ EIL | KSMK2X4X13R-2STG | 2 | HC* | 3000 | 65.4 | 110 | 13/52/61 | S6 | WCB/CA40 | CA6NM/CA40 | AISI 410 |
| IOCL HALDIA/ EIL | KSMK2X4X13L-2STG | 2 | HN Lean Oil* | 3000 | 45.8 | 75 | 23/62/K | S6 | WCB/CA40 | CA6NM/CA40 | AISI 410 |
| IOCL HALDIA/ EIL | SMK3X4X13 | 2 | LCO* | 3000 | 19.5 | 55 | 23/62/K | S6 | WCB/CA40 | CA6NM/CA40 | AISI 410 |
| IOCL HALDIA/ EIL | KSMK10X10X13 | 2 | LCO* | 3000 | 128 | 165 | 23/62/K | S6 | WCB/CA40 | CA6NM/CA40 | AISI 410 |
| IOCL HALDIA/ EIL | KSMK2X4X13R-2STG | 2 | HC* | 3000 | 29.4 | 110 | 32/62/G | C6 | CA6NM/CA40 | CA6NM/CA40 | AISI 410 |
| IOCL HALDIA/ EIL | SMK6X8X11 | 2 | HC* | 3000 | 49.6 | 75 | 32/62/G | C6 | CA6NM/CA40 | CA6NM/CA40 | AISI 410 |
| IOCL HALDIA/ EIL | SMK2X3X12 | 2 | SourWater* | 3000 | 9 | 18.5 | 11/61/ | S6 | WCB/CA40 | CA6NM/CA40 | AISI 410 |
| IOCL HALDIA/ EIL | KSMK4X6X14-2STG | 2 | FCCU FEED* | 3000 | 79 | 255 | 02/62/C | S6 | WCB/CA40 | CA6NM/CA40 | AISI 410 |
| IOCL HALDIA/ EIL | SMK1.5X2X8L | 1 | WATER+HC* | 3000 | 0.75 | 2.2 | 11/61/ | S6 | WCB/CA40 | CA6NM/CA40 | AISI 410 |
| IOCL HALDIA/ EIL | SMK6X8X21L | 2 | HC* | 1500 | 20.3 | 45 | 11/52/61 | S6 | WCB/CA40 | CA6NM/CA40 | AISI 410 |
| IOCL HALDIA/ EIL | SMKC 2X3X13 | 2 | Lt.HC* | 3000 | 10.2 | 22 | 11/52/61 | S6 | WCB/CA40 | CA6NM/CA40 | AISI 410 |
| IOCL HALDIA/ EIL | SMKC 2X3X13 | 2 | SUP.LeanOil* | 3000 | 10.2 | 22 | 11/61/ | S6 | WCB/CA40 | CA6NM/CA40 | AISI 410 |
| IOCL HALDIA/ EIL | SMKC 3X4X13 | 2 | LPG* | 3000 | 19.7 | 30 | 11/52/61 | S6 | WCB/CA40 | CA6NM/CA40 | AISI 410 |
| IOCL HALDIA/ EIL | KSMK2X4X13L-2STG | 2 | LPG PROD.* | 3000 | 36.7 | 45 | 11/52/61 | S6 | WCB/CA40 | CA6NM/CA40 | AISI 410 |
| IOCL HALDIA/ EIL | KSMK1.5X2.5X10-2ST | 2 | HvyNaphtha* | 3000 | 15 | 18.5 | 23/52/62/K | S6 | WCB/CA40 | CA6NM/CA40 | AISI 410 |
| IOCL HALDIA/ EIL | SMK3X4X10 | 2 | Lt.Naphtha* | 3000 | 8.6 | 18.5 | 11/52/61 | S6 | WCB/CA40 | CA6NM/CA40 | AISI 410 |
| IOCL HALDIA/ EIL | SMK3X4X10 | 2 | RichAmine* | 3000 | 11.6 | 30 | 11/52/61 | A8 | CF3M/CF3M | CF3M/CF3M | AISI 316 |
| IOCL HALDIA/ EIL | SMK2X3X10H | 2 | Rich water* | 3000 | 6.3 | 15 | 11/61/ | S8 | WCB/CF8M | CF3M/CF8M | AISI 316 |
| IOCL HALDIA/ EIL | SMK1.5X2.5X9 | 1 | AmineSoln* | 3000 | 2.7 | 7.5 | 11/61/ | S8 | WCB/CF8M | CF3M/CF8M | AISI 316 |
| IOCL HALDIA/ EIL | SMK2X3X12 | 2 | DecentedOil* | 3000 | 5.8 | 15 | 32/62/E | S6 | WCB/CA40 | CA6NM/CA40 | AISI 410 |
| IOCL HALDIA/ EIL | SMK1.5X2X8L | 2 | Condensate | 3000 | 1.8 | 3.7 | 23/61/J | S6 | WCB/CA40 | CA6NM/CA40 | AISI 410 |
| IOCL HALDIA/ EIL | SMK3X4X13 | 2 | Spindle oil | 3000 | 20 | 37 | 02/62/E | S5 | WCB/CA40 | WCB/CA40 | AISI 4140 |
| IOCL HALDIA/ EIL | SMK6X8X11 | 2 | Spindleoil(HQ | 3000 | 63.6 | 75 | 02/62/E | S5 | WCB/CA40 | WCB/CA40 | AISI 4140 |
| IOCL HALDIA/ EIL | KSMK10X10X13 | 3 | Lt.Oil(CR+IR) | 3000 | 139.3 | 160 | 02/62/G | S5 | WCB/CA40 | WCB/CA40 | AISI 4140 |
| IOCL HALDIA/ EIL | KSMK3X4X11-2STG | 2 | LtOil(Prod) | 3000 | 27.4 | 45 | 02/62/G | S5 | WCB/CA40 | WCB/CA40 | AISI 4140 |
| IOCL HALDIA/ EIL | SMK6X8X11 | 2 | IO IR | 3000 | 56.4 | 75 | 02/62/G | C6 | CA6NM/CA40 | CA6NM/CA40 | AISI 410 |
| IOCL HALDIA/ EIL | KSMK4X6X14P-2STG | 2 | IO(Product) | 3000 | 77.9 | 110 | 02/62/G | C6 | CA6NM/CA40 | CA6NM/CA40 | AISI 410 |
| IOCL HALDIA/ EIL | SMK4X6X10H | 2 | Hvy Oil IR | 3000 | 36.8 | 45 | 02/62/G | C6 | CA6NM/CA40 | CA6NM/CA40 | AISI 410 |
| IOCL HALDIA/ EIL | KSMK1.5X2.5X10-2ST | 2 | H.O.Prod. | 3000 | 15 | 22 | 02/62/G | C6 | CA6NM/CA40 | CA6NM/CA40 | AISI 410 |
| IOCL HALDIA/ EIL | KSMK3X4X11-2STG | 2 | Slop Oil | 3000 | 22 | 30 | 02/62/G | C6 | CA6NM/CA40 | CA6NM/CA40 | AISI 410 |
| IOCL HALDIA/ EIL | SMK6X8X15 | 2 | RCO | 3000 | 146.7 | 160 | 11/61/C | S6 | WCB/CA40 | CA6NM/CA40 | AISI4140 |
| IOCL HALDIA/ EIL | SMK6X8X13L | 2 | g/o/prod+reflu | 3000 | 87.7 | 110 | 02/62/E | S6 | WCB/CA40 | CA6NM/CA40 | AISI4140 |
| IOCL HALDIA/ EIL | SMK iv3X4X13 | 2 | INTER OIL | 3000 | 37 | 37 | 02/62/G | C6 | CA6NM/CA40 | 12% CR/CA40 | AISI410 |
| **IOCL HALDIA/EIL** | **DVMX 3X6X9E-6Stg** | **2** | **B F W servic** | **3000** | | **170** | **23** | **c-6** | **CA6NM/CA40** | **CA6NM/CA40** | **AISI410** |
| IOCL HALDIA/ EIL | SMK 3X4X6 | 2 | P W/ CONDE. | 1400 | 0.5 | 1.5 | 11,61 | A-8 | CF3M/CF3M | CF3M/CF3M | AISI316 |
| IOCL HALDIA/ EIL | SMK 4X6X10L | 2 | FM/R water | 3000 | 13.3 | 30 | 32/62 | A-8 | CF3M/CF3M | CF3M/CF3M | AISI316 |
| IOCL HALDIA/EIL | SMK 2X3X10L | 2 | Sour Water | 3000 | 4 | 11 | 32/61 | A-8 | CF3M/CF3M | CF3M/CF3M | AISI316 |
| IOCL HALDIA/EIL | SMK 2X3X13 | 2 | Light Naphtha | 3000 | 22.5 | 30 | 11/52/6 | S-6 | WCB/CA40 | CA6NM/CA40 | AISI410 |
| IOCL HALDIA/EIL | KSMK3X4X11-2Stg | 2 | LEAN AMINE | 3000 | 48.5 | 110 | 11,61 | S8 | WCB/CF8M | 3M/CF8M | AISI316 |
| IOCL HALDIA/EIL | KSMK2X3X11-2Stg | 2 | LCO /SO | 3000 | 28.5 | 55 | 11,61 | S-5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| IOCL HALDIA/EIL | SMKc 2X3X10H | 2 | LCN | 3000 | 8.3 | 15 | 11,61 | S-6 | WCB/CA40 | CA6NM/CA40 | AISI410 |
| IOCL HALDIA/EIL | SMK 3X4X8HH | 2 | DM WATER | 3000 | 5.6 | 11 | 11,61 | A-7 | CF8/CF8 | CF8/CF8 | AISI316 |
| IOCL HALDIA/EIL | KSMK1.5X2.5X10-2Stg | 2 | LCO/SO | 3000 | 12.5 | 30 | 11,61 | S-5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| IOCL HALDIA/EIL | SMK 4X6X13 | 2 | FCCU FEED* | 3000 | 37.9 | 90 | 02-62/C | S-5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| IOCL HALDIA/EIL | SMK 2.5X3X6 | 2 | 45-50% C.So | 3000 | 2.8 | 15 | 13/62 | S-5 | WCB/CA40 | WCB/CA40 | AISI316 |
| MRL MADRAS/EIL | SMKo 6x8x21L | 1 | CRUDE | 3000 | 297.84 | 520 | 11/61/A | S-5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| IOCL HALDIA/EIL | DVMX 4X6X10C/E-4/5S | 3 | Ms/ker/Diesel | 3000 | | 425 | | S-5 | WCB/CA40 | CF-8/8M/CA40 | AISI4140 |
| BPCL MUMBAI | VMB8X12-7Stg | 1 | Condensate | 3000 | 3.3 | 5.5 | 13/62 | S8 | WCB/ | CF8M/ | AISI 410 |
| HPCL,M/B-Pipeline | DVMX6X8X11E-4Stg | 3 | Ms/sko/HSD | 3000 | 613.9 | 720 | 31/61 | S5 | WCB/CA40 | CA6NM/CA40 | AISI 4140 |
| HPCL,M/B-Pipeline | DVMX6X8X11E-9Stg | 3 | Ms/sko/HSD | 3000 | 1431.7 | 1680 | 31/61 | S5 | WCB/CA40 | CA6NM/CA40 | AISI 4140 |
| IOCL(PL)NOIDA | VM 23X18-5 STGS. | 1 | Ms/ker/Diesel | 3000 | 8.43 | 11 | 13/61 | S5 | WCB/CA40 | WCB/NIL | AISI4140 |
| MRL/C B C D F | DVMX 3X6X9ED-7STG | 2 | CRUDE OIL | 3000 | 111.68 | 130 | 11/62/E | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |

# ORDERS FOR CENTRIFUGAL PUMPS SUPPLIED BY BHARAT PUMPS COMPRESSORS LTD

## SPECIFICATIONS FOR CENTRIFUGAL PUMP ORDERS

| CLIENT/ | PUMP TYPE | QTY | LIQUID | RPM | Pump | Driver | API Plan | Matl. | Metallurgy | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PROJECT | | | *H2S APPL | SYN. | BKW | (KW) | F/C PLAN | Code | Case/ W/R | Imp./ W/R | Shaft |
| IOCL,NOIDA(PL) | VM23X18-5STG | 2 | Ms/ker/Diesel | 3000 | 9.3 | 11 | 13/61 | S5 | WCB/CA40 | WCB/ | AISI 4140 |
| IOCL,NOIDA(PL) | VB17X18-17Stg | 1 | Ms/ker/Diesel | 3000 | 16.02 | 22 | 13/61 | S5 | WCB/CA40 | WCB/ | AISI 4140 |
| IOCL,NOIDA(PL) | VM23X18-5STG | 2 | Ms/ker/Diesel | 3000 | 7.7 | 11 | 13/61 | S5 | WCB/CA40 | WCB/ | AISI 4140 |
| CPCL,CHENNAI | KSMKo8X10X15 | 1 | FUEL OIL | 3000 | 263.5 | 290 | 11/61/A | S5 | WCB/CA40 | WCB/CA40 | AISI 4140 |
| IOCL,NOIDA(PL) | VM 23X18-5 STGS. | 3 | MS,Ker/Diesel | 3000 | 7.7 | 11 | 13/61 | S5 | WCB/CA40 | WCB/ | AISI4140 |
| HPCL,Secundera | VB750X20-3 STG. | 1 | MS,N,SKO, | 1482 | 120 | 132 | 13/61 | S5 | WCB/CA40 | WCB/ | AISI4140 |
| FCI,SINDRI | VB 65X7A-9 STG. | 2 | AMMONIA | 3000 | 79.2 | 90 | 13/52/61 | | LCB/CA40 | CA6NM/ | AISI410 |
| HPCL,Vizag(PL) | SMK 4X6X10H | 3 | MS | 3000 | 34.1 | | 11,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| HPCL,Vizag(PL) | SMK 4X6X10H | 3 | SKO | 3000 | 35 | | 11,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| HPCL,Vizag(PL) | SMK 6X8X11 | 3 | HSD | 3000 | 73.2 | | 11,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| HPCL,Vizag(PL) | SMK 4X6X10H | 3 | SKO | 3000 | 35.8 | | 11,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| HPCL,Vizag(PL) | SMK 6X8X11 | 4 | HSD | 3000 | 74.7 | | 11,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| HPCL,Vizag(PL) | SMK 4X6X10H | 2 | ATF | 3000 | 34.5 | | 11,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| HPCL,Vizag(PL) | SMK 2X3X12 | 2 | SLOP | 3000 | 12 | | 11,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| IOCL HALDIA REF. | SMKiv 2X3X12 | 1 | DO/HCO | 3000 | 11.4 | 22 | 32/62/G | S6 | WCB/CA40 | CA6NM/CA40 | AISI4140 |
| IOCL(PL)NOIDA | VB 750X20-3STG. | 2 | Ms/ker/Diesel | 1480 | 92 | 110 | 13/61 | S5 | WCB/CA40 | WCB/ | AISI4140 |
| IOCL(PL)NOIDA | DVMX 6X8X11E- 5STG. | 2 | Ms/ker/Diesel | 3000 | 822 | 905 | 13/61/A | S5 | WCB/CA40 | CF8/CA40 | AISI4140 |
| GAIL-PATA AURA | SMKc4X6X8L | 1 | C2/C3 | 3000 | 6.54 | 11 | 11,52 | | LCB/CA40 | CF8/CA40 | AISI4140 |
| CPCL REFI./EIL | SMK 6X8X15 | 2 | RCO (HC) | 3000 | 122 | 160 | 54,62/G | C-6 | CA6NM/CA40 | CA6NM/CA40 | AISI410 |
| IOCL MATHURA | KSMK 8X10X18 | 4 | HYD.CARBO. | 3000 | 266 | 485 | 02,62/C | LCB | LCB/CA40 | LCB/CA40 | AISI4140 |
| IOCL MATHURA | SMK 8X8X9 | 3 | TEMP. WATEF | 3000 | 37 | 55 | 11,61 | A-7 | CF3/CF3 | CF3/CF3 | AISI304L |
| IOCL MATHURA | KSMK 3X4X11-2 STG. | 2 | HYD.CARBO. | 3000 | 15.9 | 37 | 11,52,61 | LCB | LCB/CA40 | LCB/CA40 | AISI4140 |
| IOCL MATHURA | SMK 3X4X8HH | 2 | CAUSTIC | 3000 | 7.2 | 18.5 | 11,62 | LCB | LCB/CA40 | LCB/CA40 | AISI4140 |
| CPCL,CHENNAI | SMK 6X8X15 | 2 | VAC.DIESEL | 3000 | 161 | 180 | 23/61/K | S5 | WCB/CA40 | WCB/CA40 | AISI 4140 |
| NPCIL,MUMBAI | VB1150X25-5 Stg | 8 | WATER | 1500 | 420.3 | 460 | 13/61 | S8 | WCB/CA40 | CF8/CA40 | AISI410 |
| BPCL,MUMBAI | SMK3X4X10 | 2 | SourWater | 3000 | 15.5 | 22 | 23/61/K | LCB | LCB/CF3M | CF3M/CF3M | AISI316L |
| IOCL,GUAHATI | VB65X7B-5 STGS. | 1 | MS/KE/DIESEI | 3000 | 88.8 | 110 | 13/61 | S5 | WCB/CA40 | WCB/ | AISI4140 |
| BPCL,MUMBAI | SMK 6X8X15 | 1 | DM WATER | 3000 | 132.2 | 162 | 11/61/ | A8 | CF8M/CF8M | CF8M/CF8M | AISI316 |
| BPCL,MUMBAI | SMK 6X8X15 | 2 | DM WATER | 3000 | 132.2 | 162(T) | 11/61/ | A8 | CF8M/CF8M | CF8M/CF8M | AISI316 |
| BPCL, MUMBAI | KSMK 10X12X21 | 2 | CRUDE | 3000 | 679 | 750 | 02/62/A | LCB | LCB/CA40 | LCB/CA40 | AISI 4140 |
| IOCL,HALDIA | KSMK 2X3X11H-2STG | 1 | Condensate | 3000 | 50 | 55 | 13/61/ | C6 | CA6NM/CF8 | CA6NM/ CF8 | AISI 410 |
| IOCL,NOIDA(PL) | VM17X18-18STG | 1 | Petrolium Prod | 3000 | 17 | 22 | 13/61/ | S5 | WCB/ | WCB/CA40 | AISI 4140 |
| CPCL,CHENNAI | VM8X12-6STG | 2 | HC+Sour W. | 3000 | 2.7 | 3.7 | 13/61/ | LCB | LCB/CA40 | LCB/ | AISI 410 |
| IOCL(PL)NOIDA | DVMX-SPARES | | | 3000 | | | | | | | |
| PETRONET | DVMX-SPARES | | | 3000 | | | | | | | |
| IOCL,HALDIA | SMK4X6X13 | 1 | FCCU FEED | 3000 | 76.1 | 90 | 02/62/C | S5 | WCB/CA40 | WCB/CA40 | AISI 4140 |
| IOCL,HALDIA | VM23X18-18STG | 1 | LPG | 3000 | 13.93 | 18.5 | 13/62 | S5 | WCB/CA40 | WCB/ | AISI410 |
| BPCL. MUMBAI | SMK'C'3X4X13 | 1 | HC | 3000 | 18.1 | 30 | 53M/A | LCB | LCB/CA40 | LCB/CA40 | AISI4140 |
| BPCL. MUMBAI | SMK'C'3X4X13 | 1 | HC | 3000 | 18.1 | 22(T) | 53M/A | LCB | LCB/CA40 | LCB/CA40 | AISI4140 |
| ONGC/ EIL | SMK3X4X8H | 2 | OIL | 3000 | 7.4 | 15 | 11/61/ | S5 | WCB/CA40 | WCB/CA40 | AISI 4140 |
| IOCL,PANIPAT | KSMK10X14X24 | 2 | HC+S | 3000 | 110.5 | 125/130 | 23/61/L | S5 | WCB/CA40 | WCB/CA40 | AISI 4140 |
| IOCL,PANIPAT | KSMK 2X4X13L-2STG. | 2 | HC. | 3000 | 33.3 | 45 | 11,52 | S8 | WCB/CA40 | 316SS/CA40 | AISI4140 |
| IOCL,PANIPAT | KSMK 2X4X13H-2STG | 2 | HC. | 3000 | 49.1 | 75 | 11,52 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| IOCL,PANIPAT | KSMK 10X14X24 | 2 | HC. | 3000 | 144.6 | 160 | 23,52,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| IOCL,PANIPAT | KSMK 2X4X13HH-2STG | 2 | HC | 3000 | 55.4 | 75 | 11/52/61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| IOCL,PANIPAT | KSMK2X4X13HH-2STG. | 2 | LEAN AMINE | 3000 | 106.4 | 125 | 11/61/ | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| IOCL,PANIPAT | SMK 2X3X10H | 2 | HC | 3000 | 7.4 | 9.3 | 11,52,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| IOCL,PANIPAT | SMK 10X12X18 | 2 | HC | 1500 | 90 | 110 | 23,61,L | S6 | WCB/CA40 | CA6NM/CA40 | AISI4140 |
| IOCL,PANIPAT | KSMK 2X3X11-2ST | 2 | HC | 3000 | 17.8 | 30 | 11,52,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| IOCL,PANIPAT | SMK 2X3X10H | 2 | WATER | 3000 | 11.3 | 15 | 11,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| IOCL,PANIPAT | KSMK1.5X2.5X10-2ST | 3 | HC | 3000 | 13 | 18.5 | 23,61,K | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| IOCL,PANIPAT | SMK2X3X8L | 1 | SOURWATER | 3000 | 5 | 7.5 | 11,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| IOCL,PANIPAT | SMK2X3X8L | 1 | SOURWATER | 3000 | 5 | 7.5 | 11,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| IOCL,PANIPAT | SMK1.5X2.5X9 | 1 | SERV.WATER | 3000 | 4.1 | 5.5 | 11,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| IOCL,PANIPAT | VM 44X28-5 STG. | 2 | HC. | 3000 | 36.41 | 55 | 13,61,E | | KCS/SS304 | KCS/SS304 | AISI304 |

# ORDERS FOR CENTRIFUGAL PUMPS SUPPLIED BY BHARAT PUMPS COMPRESSORS LTD

## SPECIFICATIONS FOR CENTRIFUGAL PUMP ORDERS

| CLIENT/ | PUMP TYPE | QTY | LIQUID | RPM | Pump | Driver | API Plan | Matl. | Metallurgy | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PROJECT | | | *H2S APPL | SYN. | BKW | (KW) | F/C PLAN | Code | Case/ W/R | Imp./ W/R | Shaft |
| IOCL,PANIPAT | VM15X15-6STG. | 1 | ST.CONDENS | 3000 | 4.9 | 7.5 | 13,61/ | | KCS/SS304 | KCS/SS304 | AISI304 |
| CPCL,CHENNAI/EIL | SMK c 4X6X10 H | 2 | HC | 3000 | 33.6 | 45 | 11,52,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| CPCL,CHENNAI/EIL | SMK'C 3X4X8H | 1 | HC | 3000 | 3.37 | 5.5 | 11,52,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| CPCL,CHENNAI/EIL | SMK'C 3X4X8H | 2 | HC | 3000 | 5.57 | 7.5 | 11,52,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| CPCL,CHENNAI/EIL | SMK 4X6X15 | 2 | LPG | 3000 | 57.5 | 75 | 11,52,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| HPCL,Vizag(PL) | SMK 6X8X11 | 4 | HSD | 3000 | 74.7 | | 11,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| IOCL(PL)NOIDA | VB310X12-5 STG | 2 | PETROLEUM | 1500 | 58.1 | 75 | 13,61 | S6 | WCB/CA40 | CA6NM | AISI4140 |
| IOCL NOIDA | VM 32X28A-3 STG. | 1 | MS/DIESEL/K. | 3000 | 7.92 | 11 | 13,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| IOCL NOIDA | VM 32X28A-15 STG. | 1 | MS/DIESEL/K. | 3000 | 38.2 | 45 | 13,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| IOCL NOIDA | VM 32X28A-8 STG. | 1 | MS/DIESEL/K. | 3000 | 19.6 | | 13,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| IOCL,NOIDA | VM32X28A-9STG | 1 | CRUDE OIL | 3000 | 28.3 | 37 | 13,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| IOCL,NOIDA | VM32X28A-8STG | 1 | CRUDE OIL | 3000 | 22.5 | 30 | 13,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| IOCL(PL)NOIDA | DVMX 4x6x10C/E | 2 | MS/DIESEL/K. | 3000 | 286.39 | 320 | 11,61/A | S8 | WCB/CA40 | CF8/CA40 | AISI4140 |
| CPCL/ EIL | SMU 4X6X10L | 1 | HC. | 3000 | 12.1 | 30 | 11,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| CPCL/ EIL | SMU 4X6X10L | 1 | HC. | 3000 | 12 | 30 | 11,52,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| IOCL/EIL | VB750X20-5STG. | 3 | CRUDE | 3000 | 174.9 | 195 | 13,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| IOCL/EIL | VM 23X18-2 STG. | 2 | S.W.A. HCBN | 3000 | 4.6 | 7.5 | 13,61/E | S5 | LCB/CA40 | LCB/ | AISI4140 |
| IOCL/EIL | VM 44X28-2 STG. | 2 | AROMATIC,H | 3000 | 7.2 | 9.3 | 13,61/E | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| IOCL/EIL | VMB 23X18-3STG | 2 | HC NAPHTHA | 3000 | 3.58 | 5.5 | 23,52,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| IOCL/EIL | KSMK 4X6X14P-2ST | 2 | LEAN AMINE | 3000 | 173.7 | 180 | 13,52,61 | S8 | LCB/CF3M | CF3M/CF3M | AISI316L |
| IOCL NOIDA | VM 32X28A-3 STG. | 1 | MS/DIESEL/K. | 3000 | 7.92 | 11 | 13,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| KRL/ KOCHI | DVMX6X8X11E-7STG | 2 | DIESEL/VGO | 3000 | 1038.9 | 1180 | 53,C, | LCB | LCB/CA40 | LCB/CA40 | AISI4140 |
| IOCL,NOIDA/SSPL | DVMX6X8X11E-3 STG | 3 | MS/HSD/KOIL | 3000 | 463.2 | 510 | 31/61 | S8 | WCB/CA40 | CF8/CA40 | AISI4140 |
| ONGC/ EIL | KSMK 2X4X13HH-2STG | 2 | CRUDE OIL | 3000 | 73.9 | 90 | 11,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| IOCL PANIPAT | SMK 6X8X13L | 2 | CR.FEED(HC) | 3000 | 108.5 | 110 | 11,52,61/M | S5 | LCB/CA40 | LCB/CA40 | AISI4140 |
| IOCL(PL)NOIDA | VB 430X16-4STG. | 2 | MS,DIESEL/K. | 1450 | 65.2 | 75 | 13,61 | S6 | WCB/CA40 | CA6NM/CA40 | AISI4140 |
| HPCL/VISHAKH. | VM 44X28-5STG. | 1 | SLOP | 3000 | 28.5 | 37 | 13,61 | S5 | WCB/CA40 | WCB | AISI410 |
| IOCL(PL)NOIDA | DVMX 4X6X10C/E-4ST | 3 | DIESEL/MS/KE | 3380 | 456.2 | 510 | 11,61 | S6 | WCB/CA40 | CA6NM/CA40 | AISI4140 |
| IOCL,HALDIA | VMB23X18-18 STG | 1 | LPG | 3000 | 10.7 | 18.5 | 13,62 | S6 | WCB/CA40 | CA6NM | AISI4140 |
| IOCL,HALDIA | VM 8X12- 9 STG | 1 | CRUDE SLOP | 3000 | 6.61 | 9.3 | 13,62 | S5 | WCB | WCB | AISI4140 |
| IOCL,HALDIA | SMK 6X8X11 | 1 | TOP CIR.REFL | 3000 | 38.15 | 45 | 11,61,E | C6 | CA15/CA40 | CA15/CA40 | AISI410 |
| IOCL NOIDA | VM 32X28A-3 STG. | 1 | Ms/ker/Diesel | 3000 | 7.92 | 11 | 13,61 | S5 | WCB/CA40 | WCB | AISI4140 |
| IOCL HALDIA | DVMX 3X4X9H-7 STG. | 2 | HYD.CARBO. | 3000 | 66.77 | 75 | 11,61 | S5 | CA40 | WCB | AISI4140 |
| HPCL,MUMBAI | VMB 62X40-7 STG. | 3 | LPG | 3000 | 45.6 | 45 | 13,52,61/M | S5 | WCB/CA40 | WCB | AISI420 |
| | KSMK 2X3X11-2STG | 1 | Wild Naptha | 3000 | 18.6 | 30 | 13,61 | S6 | WCB/CA40 | CA40 | AISI4140 |
| IOCL (PL), NOIDA | SMK4X6X10L | 2 | MS | 3000 | 25.6 | 37 | 11,61 | S6 | WCB/CA40 | CA41 | AISI4140 |
| IOCL (PL), NOIDA | SMKo 4X6X10H | 2 | SKO | 3000 | 40.9 | 55 | 11,61 | S6 | WCB/CA40 | CA42 | AISI4140 |
| IOCL (PL), NOIDA | SMKo 6X8X11 | 3 | HSD | 3000 | 57.8 | 75 | 11,61 | S6 | WCB/CA40 | CA43 | AISI4140 |
| HPCL MUMBAI | SMK 6X8X18 | 2 | LEAN AMINE | 2960 | 199.5 | 370 | 11,52,61 | S-8 | WCB/CF3M | CF3M/CF3M | AISI316L |
| HPCL MUMBAI | SMK4X6X13 | 2 | SKO/MTO/ATF | 2940 | 52 | 75 | 23,52,61 | S-5 | WCB/CA40 | CA6NM/CA40 | AISI410 |
| HPCL MUMBAI | KSMK2X4X13HH2STG. | 1 | SSW/F W. | 2963 | 152.7 | 110 | 11,61 | S-8 | WCB/CF3M | CF3M/CF3M | AISI316L |
| HPCL MUMBAI | SMK 4X6X13 | 4 | UN. NAPTHA. | 2940 | 54.6 | 5.5 | 11,52,61 | S-6 | WCB/CA40 | CA15/CA40 | AISI4140 |
| | | | | | | | | | | | |
| VRCFP | SMK 6X8X18 | 2 | LEAN AMINE | 2980 | 304.8 | 250 | 11,52,61 | | WCB/CA40 | CF3M/CA40 | AISI410 |
| VRCFP | SMK 1 1/2X2X8H | 3 | 46%CAUSTIC | 2898 | 5.48 | 5.5 | 11,62 | S/5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| NRL NUMALIGARH | KSMK3X4X11-2STG. | | VAC RESIDUE | 2900 | 44.3 | 55 | 32,62 | C-6 | CA15/CA40 | CA15/CA40 | AISI410 |
| IOCL(PL)NOIDA | VM8X12-6STG | 1 | Petrolium Prod | 2840 | 3 | 3.7 | 13,61 | S5 | WCB/CA40 | WCB/NIL | AISI410 |
| IOCL(PL)NOIDA | VM8X12-6STG | 1 | Petrolium Prod | 2840 | 3 | 3.7 | 13,61 | S5 | WCB/CA40 | WCB/NIL | AISI410 |
| IOCL(PL)NOIDA | VMB23x18-5STG | 1 | Petrolium Prod | 2840 | 7.8 | 11 | 13,61 | S5 | WCB/CA40 | WCB/NIL | AISI410 |
| IOCL(PL)NOIDA | VM23X18-5STG | 1 | Petrolium Prod | 2840 | 7.8 | 11 | 13,61 | S5 | WCB/CA40 | WCB/NIL | AISI410 |
| HPCL MUMBAI | SMK 4X6X14 1/2 | 2 | HYD. CARBO. | 2900 | 66 | 75 | 11,52,61 | S-5 | WCB/CA40 | WCB/CA40 | AISI410 |
| HPCL MUMBAI | SMK 6X8X13L | 1 | APS TPA | 2940 | 106 | 110 | 23,52,61 | S-6 | WCB/CA40 | CA6NM/CA40 | AISI410 |
| VRCFP | SMKc 6X8X15 | 2 | H.R.R. | 2970 | 147.3 | 160 | 23,52,61 | S-5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| VRCFP | SMKc 3X4X13 | 2 | STAB.REFL. | 2910 | 19.1 | 22 | 11,53B,61 | | WCB/316 | LCB/316 | AISI4140 |
| VRCFP | KSMK 2X4X13H-2STG | 2 | DEISO. BOTT. | 2960 | 74.2 | 55 | 23,52,61 | S-5 | WCB/CA40 | WCB/CA40 | AISI4140 |

# ORDERS FOR CENTRIFUGAL PUMPS SUPPLIED BY BHARAT PUMPS COMPRESSORS LTD

## SPECIFICATIONS FOR CENTRIFUGAL PUMP ORDERS

| CLIENT/ | PUMP TYPE | QTY | LIQUID | RPM | Pump | Driver | API Plan | Matl. | Metallurgy | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PROJECT | | | *H2S APPL | SYN. | BKW | (KW) | F/C PLAN | Code | Case/ W/R | Imp./ W/R | Shaft |
| GFEC | KSMK 4X6X13 1/2-2ST | 2 | AROMATIC,H | 2975 | 276 | 165 | 11,52,61 | S-5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| GFEC | SMK 4X6X13 | 2 | DIH RECYCLE | 2930 | 45 | 37 | 11,52,61 | S-5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| | KSMK 2X4X13L-2STG. | 2 | DIH BOTTOM | 2930 | 43.3 | 45 | 23,52,61 | S-5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| GFEC | KSMK 2X4X13H-2STG | 2 | ISOMERATE | 2950 | 78.3 | 75 | 11,52,61 | S-5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| GFEC | SMK 4X6X10H | 2 | HYD.+DIS.H2 | 2920 | 39 | 37 | 11,52,61 | S-5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| IOCL(PL)NOIDA | VB750X20-3 STG. | 2 | Petrolium Prod | 1470 | 97.4 | 110 | 13,61 | S6 | WCB/CA40 | CA15/CA40 | AISI410 |
| IOCL(PL)NOIDA | DVMX 6X8X11E- 5STG. | 2 | HSD | 2830 | 608.3 | 805 | 31,61 | S6 | WCB/CA40 | CF8/8M/CA40 | AISI4140 |
| IPCL(PL)NOIDA | VM 8X12-7STG. | 1 | HSD | 2870 | 3 | 5.5 | 13,61 | | WCB/NIL | WCB/NIL | AISI410 |
| IOCL(PL)NOIDA | VM 62-40-2STG. | 2 | MS | 2900 | 14.87 | 22 | 13,61 | | WCB/CA40 | WCB/NIL | AISI410 |
| MAN. BIJW. PL.PR. | DVMX 6X8X11E-9STG | 2 | | 2880 | 1205 | 1755 | 11,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| MAN. BIJW. PL.PR. | VB750X20-4STG. | 2 | Ms/sko/HSD | 1470 | 125 | 165 | 13,61 | S5 | WCB/CA40 | WCB/NIL | AISI410 |
| MAN. BIJW. PL.PR. | DVMX 4X6X10C/E-10ST | 2 | | 3160 | 746 | 1040 | 11,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| VRCFP | KSMK 10X14X24 | 2 | HYDROCARB | 1475 | 313.6 | 195 | 23,52,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| VRCFP | KSMK 4X6X14P-2ST | 2 | AROMATIC,H | 2955 | 168 | 132 | 11,52,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| VRCFP | SMK 4X6X14 1/2 | 2 | FCC NAPTHA | 2960 | 66.7 | 55 | 11,52,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| IOCL PANIPAT | SMK 4X6X10H | | ISOMERATE | 2930 | 33.8 | 37 | 11,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| A O M M P L P. | DVMX 6X8X11E-9STG | 1 | | 2970 | 1195.8 | 1780 | 11,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| IOCL(PL)NOIDA | DVMX 4X6X10C/E-5ST | 3 | MS,DIESEL/K. | 2835 | | 335 | 11,61 | S-6 | WCB/CA40 | CA15/CA40 | AISI4140 |
| MUNDRA-DEL.PL. | DVMX 6X8X11E-8STG. | 3 | | 2970 | 1288.3 | 1585 | 31,52,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| MUNDRA-DEL.PL. | DVMX 6X8X11E-9STG. | 3 | | 2970 | 1261 | 1750 | 31,52,61 | S5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| IOCL PL NOIDA | VB140X10C-2Stage | 1 | MS/Diesel/Kero | 2900 | 43.2 | 55 | 13,61 | S-6 | WCB/CA40 | CA15/CA40 | AISI4140 |
| IOCL PL NOIDA | VB140X10C-5stage | 1 | MS/Diesel/Kero | 2900 | 90.3 | 110 | 13,61 | S-6 | WCB/CA40 | CA15/CA40 | AISI4140 |
| IOCL GUJRAT | KSMK4X6X14P-2stage | 1 | HC | 2900 | 112.5 | 160 | 02,62,C | S-6 | WCB/CA40 | CA15/CA40 | AISI4140 |
| MES Delhi Cantt. | SMK4X6X8H | 4 | Petrol/Diesel/K | 2910 | 21.5 | 30 | 11,61 | S-5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| IOCL PL NOIDA | DVMX6X8X11E-6Stage | 3 | MS/Diesel/Kero | 2740 | 732.3 | 820 | 31,61,A | S-6 | WCB/CA40 | CF8/CA40 | AISI4140 |
| IOCL MATHURA | SMK6X8X21L | 1 | HVGO | 2970 | 357 | 275 | 32,62,G | C-6 | CA6NM/CA40 | CA6NM/CA40 | AISI410 |
| IOCL PL NOIDA | VM8X12-6Stage | 1 | MS/Diesel/Kero | 2840 | 3.1 | 5.5 | 13,61 | S-5 | WCB/NA | WCB/NA | AISI4140 |
| IOCL PL NOIDA | VB1150X25-3Stage | 1 | Crude Oil | 1450 | 236.1 | 260 | 13,61 | S-6 | WCB/CA40 | CA15/CA40 | AISI4140 |
| IOCL PL NOIDA | VB750X20-6Stage | 3 | MS/Diesel/Kero | 1475 | 206.2 | 240 | 13,61 | S-6 | WCB/CA40 | CA15/CA40 | AISI410 |
| IOCL PL NOIDA | DVMX6X8X11E-6Stage | 3 | MS/Diesel/Kero | 2345 | 451.2 | 520 | 31,61 | S-6 | WCB/CA40 | CF8/CA40 | AISI4140 |
| IOCL MKTG Mumbai | SMK10X12X18L | 2 | MS/HSD/SKO | 1450 | 69.2 | 90 | 11,61 | S-6 | WCB/CA40 | CF8/CA40 | AISI410 |
| IOCL MKTG Mumbai | SMK10X12X18L | 3 | MS/HSD/SKO | 1450 | 69.2 | 90 | 11,61 | S-6 | WCB/CA40 | CF8/CA40 | AISI410 |
| IOCL MKTG Mumbai | SMK6X8X13H | 1 | MS/HSD/SKO | 1450 | 16.1 | 22 | 11,61 | S-6 | WCB/CA40 | CF8/CA40 | AISI410 |
| BPCL Mumbai Ref. | KSMK2X3X11-2Stage | 2 | Gasolene | 2920 | 27.6 | 37 | 11,61 | S-6 | WCB/CA40 | CF8/CA40 | SS316 |
| IOCL Gujrat Refinery | SMK6X8X21L | 1 | Vaccum Resid | 2970 | 325.4 | 540 | 32,52,61,G | A-8 | CF8M/CF8M | CF8M/CF8M | SS316 |
| BORL BINA | SMK4X6X15 | 2 | Kero PDT(HC) | 2973 | 79.5 | 90 | 23,53B,61S | S-5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| BORL BINA | SMK6X8X15 | 3 | RCO(HC Liq) | 2985 | 153 | 220 | 23,54,62,S | C-6 | CA6NM/CA40 | CA6NM/CA40 | AISI410 |
| BORL,BINA | SMK6X8X13 | 2 | Naphtha/atm re | 2975 | 68.7 | 110 | 11,52,61,S | S-6 | WCB/CA40 | WCB/CA40 | AISI4140 |
| BORL BINA | SMK4X6X15 | 2 | NAPHTHA | 2965 | 105.2 | 132 | 11,52,61 | S-5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| BORL BINA | KSMK4X6X14P-2stage | 2 | HVGO | 2965 | 107.8 | 132 | 11,54,62,S | C-6 | CA6NM/CA40 | CA6NM/CA40 | AISI410 |
| IOCL PANIPAT | SKM6X8X11 | 2 | Perfr. Reflux | 2975 | 47.9 | 75 | 11,52,61,M | S-5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| IOCL PANIPAT | SMK4X6X15 | 2 | HC | 2965 | 74 | 110 | 23,52,61,L | S-6 | WCB/CA40 | CA15/CA40 | AISI4140 |
| IOCL PANIPAT | SMK4X6X15 | 2 | HC | 2975 | 91 | 150 | 11,53,62,G | C-6 | CA6NM/CA40 | CA6NM/CA40 | AISI410 |
| BPCL CHENNAI | SMK4X6X10H | 2 | ATF | 2955 | 40 | 45 | 11,61 | S-6 | WCB/CA40 | CF8M/CA40 | AISI4140 |
| IOCL DIGBOI | VM15X15-06Stage | 2 | HC | 2865 | 6.3 | 9.3 | 13,61 | S-5 | WCB/CA40 | WCB/CA40 | AISI410 |
| IOCL MKTG Mumbai | KSMK10X12X21 | 15 | Naphtha/Ms/di | 1470 | 73.3 | 110 | 11,61 | S-6 | WCB/CA40 | CA15/CA40 | AISI4140 |
| IOCL MKTG Mumbai | KSMK10X12X21 | 1 | Naphtha/Ms/di | 1470 | 73.3 | 110 | 11,61 | S-6 | WCB/CA40 | CA15/CA40 | AISI4140 |
| IOCL MKTG Mumbai | KSMK8X10X21 | 2 | Naphtha/Ms/di | 1470 | 60.8 | 90 | 11,61 | S-6 | WCB/CA40 | CA15/CA40 | AISI4140 |
| IOCL MKTG Mumbai | SMK6X8X13H | 2 | Naphtha/Ms/di | 1460 | 14.3 | 18.5 | 11,61 | S-6 | WCB/CA40 | CA15/CA40 | AISI4140 |
| IOCL PL NOIDA | KSMK2X4X13H-2Stage | 1 | MS/SKO | 2960 | 89.8 | 90 | 11,61 | S-6 | WCB/CA40 | CA15/CA40 | AISI4140 |
| BORL BINA | DVMX6X8X11E-6Stage | 3 | Crude Oil | 2970 | 1134.2 | 1400 | 11,61 | S-5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| BORL BINA | DVMX6X8X11E-6Stage | 3 | Crude Oil | 2970 | 1075.2 | 1400 | 11,61 | S-5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| BORL BINA | DVMX6X8X11E-6Stage | 3 | Crude Oil | 2970 | 1075.2 | 1400 | 11,61 | S-5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| IOCL GUJRAT | KSMK'O'8X10X18 | 2 | K1 Bottom | 2960 | 253.2 | 395 | 21,52,61L | S-6 | WCB/CA40 | CA15/CA40 | AISI4140 |
| IOCL GUJRAT | KSMK'O'8X10X18 | 2 | Topped Crude | 2960 | 272.7 | 400 | 21,52,61L | S-6 | WCB/CA40 | CA15/CA40 | AISI4140 |

# ORDERS FOR CENTRIFUGAL PUMPS SUPPLIED BY BHARAT PUMPS COMPRESSORS LTD

## SPECIFICATIONS FOR CENTRIFUGAL PUMP ORDERS

| CLIENT/ | PUMP TYPE | QTY | LIQUID | RPM | Pump | Driver | API Plan | Matl. | Metallurgy | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PROJECT | | | *H2S APPL | SYN. | BKW | (KW) | F/C PLAN | Code | Case/ W/R | Imp./ W/R | Shaft |
| GNVFC Bharuch | SMK2X2.5X6H | 1 | Condensate | 2845 | 2 | 3.7 | plan D | A-8 | CA15/CF8 | CA15/CF8 | SS316 |
| BORL BINA/EIL | KSMK 2X4X13H-2STG | 2 | HC | 2960 | 81.1 | 90 | 11,52,61 | A-8 | A351 Gr.CF8M | A743GrCF8M | A479 T 316 |
| BORL BINA/EIL | SMK 4X6X10H | 2 | HC | 2920 | 20.1 | 37 | 11,53,61 | S-8 | WCB/CA40 | CF8/CA40 | A479 Gr 316 |
| BORL BINA/EIL | SMK X3X10H | 2 | HC | 2880 | 6.3 | 9.3 | 11,53,61 | S-8 | WCB/CA40 | CF8/CA40 | A479 Gr 316 |
| BORL BINA/EIL | KSMK 8X10X15 | 2 | HC | 2970 | 158.4 | 240 | 23,52,61 | C-6 | 487GrCA6NM | A743GrCA15 | A276TP410 |
| BORL BINA/EIL | SMK 2X3X12 | 2 | HC | 2890 | 6.2 | 9.3 | 11,53,61 | S-8 | WCB/CA40 | CF8/CA40 | A479 TP410 |
| BORL BINA/EIL | KSMK 4X6X14P-2STG | 2 | Aromatic HC | 2970 | 85.2 | 110 | 23,52 | S-5 | WCB/CA40 | WCB/CA40 | AISI 4140 |
| BORL BINA/EIL | KSMK 2X3X11H-2STG | 2 | HC | 2930 | 25.9 | 45 | 11,52 | S-5 | WCB/CA40 | WCB/CA40 | AISI 4140 |
| BORL BINA/EIL | KSMK 8X10X15 | 2 | HC | 2985 | 177 | 215 | 23,52 | S-6 | WCB/CA40 | CA6NM/CA15 | AISI410 |
| BORL BINA/EIL | SMK 4X6X8L | 2 | HC | 2910 | 9.4 | 15 | 23,52 | s-5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| BORL BINA/EIL | SMK 4X6X15 | 3 | VGO | 2985 | 130.6 | 210 | 53A | S-5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| BORL BINA/EIL | SMK 4X6X15 | 2 | DHDT Feed | 2985 | 122.6 | 19 | 11,52 | S-5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| BORL BINA/EIL | SMK 4X6X14.5 | 1 | NHT Feed | 2975 | 54.5 | 90 | 52 | S-5 | WCB/CA40 | WCB/CA40 | AISI4140 |
| BORL BINA/EIL | SMK 4X6X13 | 2 | Blow Down Qu | 2970 | 34 | 75 | 32,52 | S-6 | WCB/CA40 | CA6NM/CA15 | AISI410 |
| BPCL-KRU /EIL | SMKc 4X6X15 | 2 | Vaccum Gas C | 2973 | 87.1 | 110 | 32,61 | S-6 | WCB/CA40 | CA6NM/CA15 | AISI410 |

# REFERENCE LIST OF RECIPROCATING COMPRESSORS SUPPLIED BY BHARAT PUMPS & COMPRESSORS LIMITED

NAINI, ALLAHABAD - INDIA

| SL NO | PURCHASER | LOCATION | MODEL | CAPACITY ($NM^3/HR$) | ABSORBED POWER (KW) | SPEED (RPM) |
|---|---|---|---|---|---|---|
| 1 | H&G/MCF | MANGALORE | 5HE/4 | 10337 | 2383 | 333 |
| 2 | H&G/MCF | MANGALORE | 5HE/4 | 10337 | 2383 | 333 |
| 3 | EIL/GSFC | BARODA | OA/1 | 145 KG/HR | 94 | 400 |
| 4 | EIL/IPCL | BARODA | 5HC/2-3 | 2000 KG/HR | 175 | 415 |
| | | | | 8500 KG/HR | 775 | |
| 5 | EIL/IPCL | BARODA | 5HC/2-3 | 2000 KG/HR | 175 | 415 |
| 7 | | | | 8500 KG/HR | 775 | |
| 8 | PDIL/HFCL | HALDIA | 4HE/1-1 | 16468 | 1730 | 300 |
| 9 | | | | 178436 | | |
| 10 | PDIL/HFCL | HALDIA | OC/1 | 2500 | 175 | 375 |
| 11 | EIL/IPCL | BARODA | 2HA/4 | 525 | 88 | 585 |
| 12 | EIL/IPCL | BARODA | 2HA/4 | 525 | 88 | 858 |
| 13 | EIL/IPCL | BARODA | 4HC/1 | 25200 | 700 | 428 |
| 14 | EIL/IPCL | BARODA | 4HC/1 | 25200 | 700 | 428 |
| 15 | UHDE/HWP | TALCHER | 2HB/2 | 1ST STAGE 2500 KG/HR<br>2ND STAGE 3330 KG/HR | 335 | 585 |
| 16 | UHDE/HWP | TALCHER | OA/1 | 2500 | 68 | 300 |
| 17 | IOL | TATANAGAR | 4HB/5 | 2310 | 600 | 600 |
| 18 | IOL PUSHYA | HOSUR | 4HB/5 | 2310 | 600 | 600 |
| 19 | IOL/NAP | FARIDABAD | 4HB/5 | 2310 | 600 | 600 |
| 20 | OIL INDIA | DULIAJAN | 2HM/2 | 3270 | 379 | 1000 |
| 21 | OIL INDIA | DULIAJAN | 2HM/2 | 3270 | 379 | 1000 |
| 22 | OIL INDIA | DULIAJAN | 2HM/2 | 3270 | 379 | 1000 |
| 23 | OIL INDIA | DULIAJAN | 2HM/2 | 3270 | 379 | 1000 |
| 24 | OIL INDIA | DULIAJAN | 2HM/2 | 3270 | 379 | 1000 |
| 25 | OIL INDIA | DULIAJAN | 2HM/2 | 3270 | 379 | 1000 |
| 26 | OIL INDIA | DULIAJAN | 2HM/2 | 3270 | 379 | 1000 |
| 27 | OIL INDIA | DULIAJAN | 2HM/2 | 3270 | 379 | 1000 |
| 28 | EIL/IPCL | BARODA | OZ/1 | 3168 | 34 | 450 |
| 29 | EIL/IPCL | BARODA | OZ/1 | 3168 | 34 | 450 |
| 30 | EIL/IPCL | BARODA | OZ/1 | 1640 | 22 | 450 |
| 31 | EIL/IPCL | BARODA | OZ/1 | 1640 | 22 | 450 |
| 32 | EIL/IPCL | BARODA | OZ/1 | 1220 | 24 | 485 |
| 33 | UNION CARBIDE | BOMBAY | 2HE/2 | 12080 | 960 | 333 |
| 34 | OIL INDIA | DULIAJAN | 2HM/2 | 5450 | 540 | 1000 |
| 35 | OIL INDIA | DULIAJAN | 2HM/2 | 5450 | 540 | 1000 |
| 36 | OIL INDIA | DULIAJAN | 2HM/1 | 3270 | 189 | 735 |
| 37 | OIL INDIA | DULIAJAN | 2HM/1 | 3270 | 189 | 735 |
| 38 | PDIL/RSP | ROURKELA | 4HF/4 | 23205 | 3450 | 300 |
| 39 | PDIL/RSP | ROURKELA | OA/1 | 4000 | 93 | 310 |
| 40 | PDIL/RSP | ROURKELA | OZ/1 | 1000 | 37 | 500 |
| 41 | PDIL/RSP | ROURKELA | OZ/1 | 1000 | 37 | 500 |
| 42 | EIL/BRPL | BONGAIGAON | 2HD/1 | 10075 | 620 | 365 |

# REFERENCE LIST OF RECIPROCATING COMPRESSORS SUPPLIED BY BHARAT PUMPS & COMPRESSORS LIMITED

NAINI, ALLAHABAD - INDIA

| SL NO | PURCHASER | LOCATION | MODEL | CAPACITY ($NM^3/HR$) | ABSORBED POWER (KW) | SPEED (RPM) |
|---|---|---|---|---|---|---|
| 43 | EIL/BRPL | BONGAIGAON | 2HD/1 | 10075 | 620 | 365 |
| 44 | SNAM PROGETTI/GNFC | BHARUCH | OZ/2 | 550 | 77 | 550 |
| 45 | PDIL/NFL | NANGAL | 2HA/2 | 600 Kg/hr | 113 | 680 |
| 46 | PDIL/NFL | NANGAL | 2HB/2 | 1700 Kg/hr | 320 | 550 |
| 47 | PDIL/HFCL | HALDIA | 2HB/2 | 1250 Kg/hr | 224 | 550 |
| 48 | PDIL/HFCL | HALDIA | 2HB/2 | 1250 Kg/hr | 224 | 550 |
| 49 | PDIL/FCI | SINDRI | 2HA/2 | 600 Kg/hr | 113 | 680 |
| 50 | PDIL/FCI | SINDRI | 2HB/2 | 1250 Kg/hr | 224 | 550 |
| 51 | PDIL/HFCL | DURGAPUR | 2HA/2 | 600 Kg/hr | 113 | 680 |
| 52 | PDIL/HFCL | DURGAPUR | 2HB/2 | 1250 Kg/hr | 224 | 550 |
| 53 | PDIL/HFCL | BARAUNI | 2HA/2 | 600 Kg/hr | 113 | 680 |
| 54 | PDIL/HFCL | BARAUNI | 2HB/2 | 1250 Kg/hr | 224 | 550 |
| 55 | FACT | UDYOG- AMANDAL | 4HE/5 | 5000 | 1500 | 333 |
| 56 | H&G/IEL | KANPUR | 4HG/4 | 27500<br>84700 | 4050 | 300 |
| 57 | H&G/IEL | KANPUR | 4HG/4 | 27500<br>84700 | 4050 | 300 |
| 58 | ELLENBARRIE IND. GASES | CALCUTTA | 4HA/5 | 1000 | 305 | 735 |
| 59 | EIL/ONGC | URAN | 2HD/1 | 31177 | 810 | 325 |
| 60 | EIL/ONGC | URAN | 2HD/1 | 31177 | 810 | 325 |
| 61 | EIL/BRPL | BONGAIGAON | OZ/1 | 1955 | 32 | 425 |
| 62 | EIL/BRPL | BONGAIGAON | OZ/1 | 1955 | 32 | 425 |
| 63 | EIL/BRPL | BONGAIGAON | 2HC/1 | 25969 | 362 | 325 |
| 64 | EIL/BRPL | BONGAIGAON | 2HC/1 | 25969 | 362 | 325 |
| 65 | EIL/BRPL | BONGAIGAON | 2HF/1 | 29141 | 1135 | 245 |
| 66 | EIL/BRPL | BONGAIGAON | 2HF/1 | 29141 | 1135 | 245 |
| 67 | EIL/HPCL | NAGPUR | OZ/1 | 300 $M^3/HR$ | 53 (80 max.) | 562 |
| 68 | EIL/HPCL | NAGPUR | OZ/1 | 300 $M^3/HR$ | 53 (80 max.) | 562 |
| 69 | EIL/HPCL | BANGLORE | OZ/1 | 311 $M^3/HR$ | 58 (87 max.) | 600 |
| 70 | EIL/HPCL | BANGLORE | OZ/1 | 311 $M^3/HR$ | 58 (87 max.) | 600 |
| 71 | EIL/BPCL | SHAKURBASTI | OZ/1 | 300 $M^3/HR$ | 53 (80 max.) | 562 |
| 72 | EIL/BPCL | SHAKURBASTI | OZ/1 | 300 $M^3/HR$ | 53 (80 max.) | 562 |
| 73 | PDIL/HFCL | NAMRUP | 2HF/2 | 23950 Kg/hr | 1040 | 333 |
| 74 | PDIL/HFCL | NAMRUP | 2HF/2 | 23950 Kg/hr | 1040 | 333 |
| 75 | GSFC | BARODA | 4HE/4 | 6900 | 1650 | 300 |
| 76 | RATHIGASES | ALWAR | 4HA/4 | 1000 | 305 | 735 |
| 77 | ANDHRA OXYGEN | VIZAG | 4HA/5 | 1000 | 305 | 735 |
| 78 | PDIL/HFCL | NAMRUP | 2HC/1 | 22570 | 335 | 363 |
| 79 | EIL/HPCL | INDORE | OZ/1 | 375 $M^3/HR$ | 60 (72 max) | 485 |
| 80 | EIL/HPCL | INDORE | OZ/1 | 375 $M^3/HR$ | 60 (72 max) | 485 |
| 81 | EIL/HPCL | HYDERABAD | OZ/1 | 375 $M^3/HR$ | 60 (72 max) | 485 |
| 82 | EIL/HPCL | HYDERABAD | OZ/1 | 375 $M^3/HR$ | 60 (72 max) | 485 |
| 83 | EIL/HPCL | HYDERABAD | OZ/1 | 375 $M^3/HR$ | 60 (72 max) | 485 |

# REFERENCE LIST OF RECIPROCATING COMPRESSORS SUPPLIED BY BHARAT PUMPS & COMPRESSORS LIMITED

NAINI, ALLAHABAD - INDIA

| SL NO | PURCHASER | LOCATION | MODEL | CAPACITY ($NM^3/HR$) | ABSORBED POWER (KW) | SPEED (RPM) |
|---|---|---|---|---|---|---|
| 84 | EIL/ONGC | URAN | 2HD/1 | 32910 Kg/hr | 740 | 327 |
| 85 | EIL/ONGC | URAN | 2HD/1 | 32910 Kg/hr | 740 | 327 |
| 86 | EIL/ONGC | URAN | 5HE/3 | 10059 Kg/hr | 1665 | 333 |
| 87 | EIL/ONGC | URAN | 5HE/3 | 10059 Kg/hr | 1665 | 333 |
| 88 | IOCL | HALDIA | OZ/1 | 4100 | 32 | 400 |
| 89 | EIL/CRL | COCHIN | 2HC/2 | 10731 kg/hr | 419 | 325 |
| 90 | EIL/CRL | COCHIN | 2HC/2 | 10731 kg/hr | 419 | 325 |
| 91 | HFCL | NAMRUP | 2HM/1 | 5200 | 290 | 775 |
| 92 | IOCL | DURGAPUR | OZ/1 | 334.7 (366 max) $M^3/HR$ | 47 (54 max) | 540 |
| 93 | IOCL | DURGAPUR | OZ/1 | 334.7 (366 max) $M^3/HR$ | 47 (54 max) | 540 |
| 94 | IOCL | DURGAPUR | OZ/1 | 334.7 (366 max) $M^3/HR$ | 47 (54 max) | 540 |
| 95 | IOCL | S. MADHOPUR | OZ/1 | 334.7 (366 max) $M^3/HR$ | 47 (54 max) | 540 |
| 96 | IOCL | S. MADHOPUR | OZ/1 | 334.7 (366 max) $M^3/HR$ | 47 (54 max) | 540 |
| 97 | IOCL | S. MADHOPUR | OZ/1 | 334.7 (366 max) $M^3/HR$ | 47 (54 max) | 540 |
| 98 | IOCL | BHOPAL | OZ/1 | 334.7 (366 max) $M^3/HR$ | 47 (54 max) | 540 |
| 99 | IOCL | BHOPAL | OZ/1 | 334.7 (366 max) $M^3/HR$ | 47 (54 max) | 540 |
| 100 | IOCL | BHOPAL | OZ/1 | 334.7 (366 max) $M^3/HR$ | 47 (54 max) | 540 |
| 101 | IOCL | KANPUR | OZ/1 | 334.7 (366 max) $M^3/HR$ | 47 (54 max) | 540 |
| 102 | IOCL | KANPUR | OZ/1 | 334.7 (366 max) $M^3/HR$ | 47 (54 max) | 540 |
| 103 | IOCL | SHAKURBASTI | OZ/1 | 334.7 (366 max) $M^3/HR$ | 47 (54 max) | 540 |
| 104 | EIL/ONGC | HAZIRA | 2HF/1 | 18630 kg/hr | 1265 | 250 |
| 105 | EIL/ONGC | HAZIRA | 2HF/1 | 18630 kg/hr | 1265 | 250 |
| 106 | OIL | DULIAJAN | 2HM/1 | 3200 | 180 | 735 |
| 107 | OIL | DULIAJAN | 2HM/1 | 3200 | 180 | 735 |
| 108 | OIL | DULIAJAN | 2HM/1 | 3200 | 180 | 735 |
| 109 | OIL | DULIAJAN | 2HM/1 | 3200 | 180 | 735 |
| 110 | PDIL/NFL | VIJAIPUR | OZ/1 | 2429 | 65 | 555 |
| 111 | SCIL FOR COAL INDIA | DANKUNI | 4HD/3 | 9000 | 1360 | 375 |
| 112 | SCIL FOR COAL INDIA | DANKUNI | 4HD/3 | 9000 | 1360 | 375 |
| 113 | SCIL FOR COAL INDIA | DANKUNI | 4HD/3 | 9000 | 1360 | 375 |
| 114 | PDIL/IFFCO | AONLA | OZ/1 | 2514 | 65 | 575 |
| 115 | PDIL/DAE | TUTICORIN | OA/1 | 37800 | 147 | 415 |
| 116 | PDIL/ONGC | BALOL | 4HA/5 | 1000 | 261 | 735 |
| 117 | PDIL/ONGC | BALOL | 4HA/5 | 1000 | 261 | 735 |
| 118 | PDIL/ONGC | BALOL | 4HA/5 | 1000 | 261 | 735 |
| 119 | IOCL | BALASORE | OZ/1 | 119 $M^3/HR$ | 13.5 (18.0 max) | 580 |
| 120 | IOCL | BALASORE | OZ/1 | 119 $M^3/HR$ | 13.5 (18.0 max) | 580 |
| 121 | IOCL | BALASORE | OZ/1 | 119 $M^3/HR$ | 13.5 (18.0 max) | 580 |
| 122 | IOCL | VARANASI | OZ/1 | 119 $M^3/HR$ | 13.5 (18.0 max) | 580 |
| 123 | IOCL | VARANASI | OZ/1 | 119 $M^3/HR$ | 13.5 (18.0 max) | 580 |
| 124 | IOCL | DELHI | OZ/1 | 119 $M^3/HR$ | 13.5 (18.0 max) | 580 |

# REFERENCE LIST OF RECIPROCATING COMPRESSORS SUPPLIED BY BHARAT PUMPS & COMPRESSORS LIMITED

NAINI, ALLAHABAD - INDIA

| SL NO | PURCHASER | LOCATION | MODEL | CAPACITY ($NM^3/HR$) | ABSORBED POWER (KW) | SPEED (RPM) |
|---|---|---|---|---|---|---|
| 125 | IOCL | SALEM | OZ/1 | 119 $M^3/HR$ | 13.5 (18.0 max) | 580 |
| 126 | IOCL | SALEM | OZ/1 | 119 $M^3/HR$ | 13.5 (18.0 max) | 580 |
| 127 | IOCL | SALEM | OZ/1 | 119 $M^3/HR$ | 13.5 (18.0 max) | 580 |
| 128 | IOCL | BANGLORE | OZ/1 | 119 $M^3/HR$ | 13.5 (18.0 max) | 580 |
| 129 | IOCL | BANGLORE | OZ/1 | 119 $M^3/HR$ | 13.5 (18.0 max) | 580 |
| 130 | IOCL | BANGLORE | OZ/1 | 119 $M^3/HR$ | 13.5 (18.0 max) | 580 |
| 131 | IOCL | ALLAHABAD | OZ/1 | 119 $M^3/HR$ | 13.5 (18.0 max) | 580 |
| 132 | IOCL | ALLAHABAD | OZ/1 | 119 $M^3/HR$ | 13.5 (18.0 max) | 580 |
| 133 | UHDE/TPL | MADRAS | 2HA/1 | 16587 | 170 | 500 |
| 134 | UHDE/TPL | MADRAS | 2HA/1 | 16587 | 170 | 500 |
| 135 | UHDE/TPL | MADRAS | 4HA/4 | 1270 | 201 | 500 |
| 136 | UHDE/TPL | MADRAS | 4HA/4 | 1270 | 201 | 500 |
| 137 | PDIL/ONGC | LANWA | 4HA/5 | 996 | 265 | 735 |
| 138 | PDIL/ONGC | LANWA | 4HA/5 | 996 | 265 | 735 |
| 139 | PDIL/ONGC | LANWA | 4HA/5 | 996 | 265 | 735 |
| 140 | PDIL/ONGC | LANWA | 4HA/5 | 996 | 265 | 735 |
| 141 | OIL INDIA | DULIAJAN | 2HM/2 | 3200 | 280 | 800 |
| 142 | OIL INDIA | DULIAJAN | 2HM/2 | 3200 | 280 | 800 |
| 143 | OIL INDIA | DULIAJAN | 2HM/2 | 3200 | 280 | 800 |
| 144 | EIL/IPCL | BARODA | 4HC/1 | 15750 | 670 | 428 |
| 145 | EIL/IPCL | BARODA | 2HA/4 | 515.5 | 88 | 585 |
| 146 | OIL INDIA | DULIAJAN | 2HM/2 | 3200 | 280 | 735 |
| 147 | OIL INDIA | DULIAJAN | 2HM/2 | 3200 | 280 | 735 |
| 148 | EIL/MGCC | NAGOTHANE | OZ/2 | 430 | 37 | 550 |
| 149 | EIL/MGCC | NAGOTHANE | OZ/2 | 160 | 15 | 500 |
| 150 | EIL/IPCL | BARODA | 2HA/4 | 515.5 | 88 | 585 |
| 151 | EIL/IPCL | BARODA | 4HC/1 | 14450 | 660 | 428 |
| 152 | EIGL | CALCUTTA | 4HC/5 | 3600 | 970 | 415 |
| 153 | EIL/ONGC | HAZIRA | 2HD/1 | 11461 | 590 | 325 |
| 154 | EIL/ONGC | HAZIRA | 2HD/1 | 11461 | 590 | 325 |
| 155 | EIL/ONGC | HAZIRA | 2HD/1 | 11612 | 576 | 325 |
| 156 | EIL/ONGC | HAZIRA | 2HD/1 | 11612 | 576 | 325 |
| 157 | UDHE/TPL | MADRAS | OZ/2 | 146 | 18 | 600 |
| 158 | EIL/GAIL | VIJAIPUR | 2HD/1 | 22680 | 510 | 325 |
| 159 | EIL/GAIL | VIJAIPUR | 2HD/1 | 22680 | 510 | 325 |
| 160 | EIL/IOCL | BARODA | 3HF/3 | 27820 | 2671 | 333 |
| 161 | EIL/IOCL | BARODA | 3HF/3 | 27820 | 2671 | 333 |
| 162 | EIL/IOCL | BARODA | 3HF/3 | 27820 | 2671 | 333 |
| 163 | EIL/IOCL | BARODA | 2HC/2 | 1ST STAGE 7035<br>2ND STAGE 3920 | 468 | 415 |
| 164 | EIL/IOCL | BARODA | 2HC/2 | 1ST STAGE 7035<br>2ND STAGE 3920 | 468 | 415 |
| 165 | EIL/ONGC | GANDHAR | 2HM/2 | 2175 | 195 | 735 |
| 166 | B&R/CMDA | CALCUTTA | 2HC/2 | 4500 | 345 | 415 |

# REFERENCE LIST OF RECIPROCATING COMPRESSORS SUPPLIED BY BHARAT PUMPS & COMPRESSORS LIMITED

NAINI, ALLAHABAD - INDIA

| SL NO | PURCHASER | LOCATION | MODEL | CAPACITY ($NM^3/HR$) | ABSORBED POWER (KW) | SPEED (RPM) |
|---|---|---|---|---|---|---|
| 167 | EIL/ONGC | GANDHAR | 2HM/2 | 2175 | 195 | 735 |
| 168 | EIL/MRL | MADRAS | 2HA/2 | 3000 Kg/Hr | 225 | 735 |
| 169 | EIL/MRL | MADRAS | 2HA/2 | 3000 Kg/Hr | 225 | 735 |
| 170 | EIL/TATA CHEMICALS | BABRALA | 2HD/1 | 14750 | 355 | 325 |
| 171 | EIL/GAIL | VAGODIA | 2HD/1 | 16430 | 600 | 325 |
| 172 | EIL/GAIL | VAGODIA | 2HD/1 | 16430 | 600 | 325 |
| 173 | EIL/GAIL | DELHI | OZ/2 | 625 | 65 | 800 |
| 174 | EIL/GAIL | BOMBAY | OZ/2 | 625 | 65 | 800 |
| 175 | EIL/GAIL | BARODA | OZ/2 | 625 | 65 | 800 |
| 176 | EIL/IOCL | GUAWAHATI | 2HA/2 | 2700 | 235 | 735 |
| 177 | EIL/IOCL | GUAWAHATI | 2HA/2 | 2700 | 235 | 735 |
| 178 | EIL/IOCL | GUAWAHATI | 2HA/2 | 2700 | 235 | 735 |
| 179 | EIL/GAIL | VIJAIPUR | 2HD/1 | 22686 | 510 | 325 |
| 180 | EIL/GAIL | VIJAIPUR | 2HD/1 | 22686 | 510 | 325 |
| 181 | B&R/CMDA | CALCUTTA | 2HC/2 | 4500 | 345 | 415 |
| 182 | RAJASHREE GASES/IGFC | JAGDISHPUR | 4HC/2-1 | 1ST & 2ND STAGE 2850<br>3RD STAGE 9320 | 860 | 295 |
| 183 | RAJASHREE GASES/IGFC | JAGDISHPUR | 4HC/2-1 | 1ST & 2ND STAGE 2850<br>3RD STAGE 9320 | 860 | 295 |
| 184 | SAIL | ROURKELA | OZ/1 | 2783 | 55 | 510 |
| 185 | SAIL | ROURKELA | OZ/2 | 397 | 37 | 585 |
| 186 | EIL/MRL | MADRAS | 2HC/1 | 10910 | 373 | 365 |
| 187 | EIL/MRL | MADRAS | 2HC/1 | 10910 | 373 | 365 |
| 188 | EIL/CRL | COCHIN | OZ/1 | 1000 | 60 | 600 |
| 189 | EIL/CRL | COCHIN | OZ/1 | 1000 | 60 | 600 |
| 190 | OIL | DULIAJAN | 2HM/2 | 3200 | 243 | 800 |
| 191 | OIL | DULIAJAN | 2HM/2 | 3200 | 243 | 800 |
| 192 | OIL | DULIAJAN | 2HM/2 | 3200 | 243 | 800 |
| 193 | OIL | DULIAJAN | 2HM/2 | 3200 | 243 | 800 |
| 194 | OIL | DULIAJAN | 4HM/2 | 5300 | 486 | 800 |
| 195 | OIL | DULIAJAN | 4HM/2 | 5300 | 486 | 800 |
| 196 | OIL | DULIAJAN | 4HM/2 | 5300 | 486 | 800 |
| 197 | DEC/ONGC | HAZIRA | 2HD/1 | 23550 | 540 | 325 |
| 198 | DEC/ONGC | HAZIRA | 2HD/1 | 23550 | 540 | 325 |
| 199 | DEC/ONGC | HAZIRA | 2HD/1 | 23550 | 540 | 325 |
| 200 | DEC/ONGC | HAZIRA | 2HD/1 | 23550 | 540 | 325 |
| 201 | DEC/ONGC | HAZIRA | 2HD/1 | 23550 | 540 | 325 |
| 202 | DEC/ONGC | HAZIRA | 2HD/1 | 23550 | 540 | 325 |
| 203 | DEC/ONGC | HAZIRA | 2HD/1 | 23550 | 540 | 325 |
| 204 | DEC/ONGC | HAZIRA | 2HD/1 | 23550 | 540 | 325 |
| 205 | DEC/ONGC | HAZIRA | 2HD/1 | 13563 | 567 | 325 |
| 206 | DEC/ONGC | HAZIRA | 2HD/1 | 13563 | 567 | 325 |
| 207 | DEC/ONGC | HAZIRA | 2HD/1 | 13563 | 567 | 325 |

# REFERENCE LIST OF RECIPROCATING COMPRESSORS SUPPLIED BY BHARAT PUMPS & COMPRESSORS LIMITED

NAINI, ALLAHABAD - INDIA

| SL NO | PURCHASER | LOCATION | MODEL | CAPACITY ($NM^3/HR$) | ABSORBED POWER (KW) | SPEED (RPM) |
|---|---|---|---|---|---|---|
| 208 | DEC/ONGC | HAZIRA | 2HD/1 | 13563 | 567 | 325 |
| 209 | EIL/IOCL | 2HC/1 | 2HC/1 | 15721 | 345 | 330 |
| 210 | EIL/IOCL | 2HC/1 | 2HC/1 | 15721 | 345 | 330 |
| 211 | EIL/IOCL | PANIPAT | 2HA/1 | 6494 | 247 | 468 |
| 212 | EIL/IOCL | PANIPAT | 2HA/1 | 6494 | 247 | 468 |
| 213 | EIL/IOCL | BARAUNI | 2HD/1 | 13564 | 525 | 318 |
| 214 | EIL/IOCL | BARAUNI | 2HD/1 | 13564 | 525 | 318 |
| 215 | EIL/IOCL | PANIPAT | 2HF/2 | 27079 | 1850 | 272.72 |
| 216 | EIL/IOCL | PANIPAT | 2HF/2 | 27079 | 1850 | 272.72 |
| 217 | EIL/IOCL | PANIPAT | 4HF/3 | 31870 | 3050 | 300 |
| 218 | EIL/IOCL | PANIPAT | 4HF/3 | 31870 | 3050 | 300 |
| 219 | EIL/IOCL | PANIPAT | 4HF/3 | 31870 | 3050 | 300 |
| 220 | EIL/IOCL | MATHURA | 2HB/1 | 8499 | 240 | 360 |
| 221 | EIL/IOCL | MATHURA | 2HB/1 | 8499 | 240 | 360 |
| 222 | IPCL | NAGOTHANE | OZ/2 | 160.0 | 15.0 | 500 |
| 223 | EIL/IOCL | DIGBOI | OZ/1 | 2517 | 22 | 324 |
| 224 | EIL/IOCL | DIGBOI | OZ/1 | 2517 | 22 | 324 |
| 225 | EIL/GAIL | USSAR | 2HD/1 | 31549 | 545 | 325 |
| 226 | EIL/GAIL | USSAR | 2HD/1 | 31549 | 545 | 325 |
| 227 | PDIL/ONGC | NAZIRA | 4HM/3 | 6530 | 867 | 800 |
| 228 | PDIL/ONGC | NAZIRA | 4HM/3 | 6530 | 867 | 800 |
| 229 | PDIL/ONGC | NAZIRA | 4HM/3 | 6530 | 867 | 800 |
| 230 | PDIL/ONGC | NAZIRA | 4HM/3 | 6530 | 867 | 800 |
| 231 | EIL/NRL | NUMALIGARH | 4HC/3 | 6209 | 600 | 365 |
| 232 | EIL/NRL | NUMALIGARH | 4HC/3 | 6209 | 600 | 365 |
| 233 | EIL/IOCL | DIGBOI | 2HD/2 | 1ST STAGE 3825 Kg/Hr<br>2ND STAGE 3655 Kg/Hr | 385 | 365 |
| 234 | EIL/IOCL | DIGBOI | 2HD/2 | 1ST STAGE 3825 Kg/Hr<br>2ND STAGE 3655 Kg/Hr | 385 | 365 |
| 235 | MGL | MUMBAI | OZ/1 | 1817 | 67 | 740 |
| 236 | OIL INDIA | DULIAGAN | 4HM/2 | 5300 | 496 | 960 |
| 237 | OIL INDIA | DULIAGAN | 2HM/2 | 3200 | 245 | 800 |
| 238 | IOCL | HALDIA | 2HB/2 | 1654 | 132 | 350 |
| 239 | IOCL | GUAWAHATI | 2HE/2 | 6167 | 670 | 296 |
| 240 | ONGC | GANDHAR | 6HM/3 | 7970 | 1075 | 1000 |
| 241 | ONGC | GANDHAR | 6HM/3 | 7970 | 1075 | 1000 |
| 242 | ONGC | GANDHAR | 6HM/3 | 7970 | 1075 | 1000 |
| 243 | ONGC | GANDHAR | 6HM/3 | 7970 | 1075 | 1000 |
| 244 | ONGC | GANDHAR | 6HM/3 | 7970 | 1075 | 1000 |
| 245 | ONGC | GANDHAR | 6HM/3 | 7970 | 1075 | 1000 |
| 246 | ONGC | GANDHAR | 6HM/3 | 7970 | 1075 | 1000 |
| 247 | IOCL | PANIPAT | 2HC/1 | 12120 | 360 | 325 |

# REFERENCE LIST OF RECIPROCATING COMPRESSORS SUPPLIED BY BHARAT PUMPS & COMPRESSORS LIMITED

NAINI, ALLAHABAD - INDIA

| SL NO | PURCHASER | LOCATION | MODEL | CAPACITY ($NM^3/HR$) | ABSORBED POWER (KW) | SPEED (RPM) |
|---|---|---|---|---|---|---|
| 248 | IOCL | PANIPAT | 2HC/1 | 12120 | 360 | 325 |
| 249 | IOCL | PANIPAT | 2HC/1 | 8689 | 260 | 325 |
| 250 | IOCL | PANIPAT | 2HC/1 | 8689 | 260 | 325 |
| 251 | CPCL | CHENNAI | OZ/1 | 1262 | 22 | 525 |
| 252 | TPL | CHENNAI | 2HA/1 | 14027.5 | 154 | 500 |
| 253 | OIL | DULIAJAN | 2HM/2 | 3200 | 245 | 960 |
| 254 | OIL | DULIAJAN | 2HM/2 | 3200 | 245 | 960 |
| 255 | OIL | DULIAJAN | 2HM/2 | 2700 | 257 | 960 |
| 256 | TPL | CHENNAI | OZ/2 | 362 | 37 | 500 |
| 257 | IOCL | GUJRAT | 2HC/1 | 6826.8 | 260 | 325 |
| 258 | IOCL | GUJRAT | 2HC/1 | 6826.8 | 260 | 325 |
| 259 | IOCL | GUJRAT | 2HF/1 | 89689.1 | 1760 | 333.33 |
| 260 | IOCL | GUJRAT | 2HF/1 | 89689.1 | 1760 | 333.33 |
| 261 | IOCL | GUJRAT | 2HF/2 | 24211/24649 | 2020 | 333.33 |
| 262 | IOCL | GUJRAT | 2HF/2 | 24211/24649 | 2020 | 333.33 |
| 263 | IOCL | GUJRAT | 2HF/2 | 24211/24649 | 2020 | 333.33 |
| 264 | HPCL | VIZAG | 2HE/1 | 40518 | 1200 | 333 |
| 265 | HPCL | VIZAG | 2HE/1 | 40518 | 1200 | 333 |
| 266 | HPCL | VIZAG | 2HE/1 | 40518 | 1200 | 333 |
| 267 | HPCL | VIZAG | 2HC/1 | 14472 | 515 | 325 |
| 268 | HPCL | VIZAG | 2HC/1 | 14472 | 515 | 325 |
| 269 | HPCL | VIZAG | 2HE/1 | 37460 | 985 | 333 |
| 270 | HPCL | VIZAG | 2HE/1 | 37460 | 985 | 333 |
| 271 | IOCL | PANIPAT | 2HD/2 | 7562/7382 | 550 | 290 |
| 272 | IOCL | PANIPAT | 4HF/3 | 33346 | 3450 | 333 |
| 273 | BRPL | BOANGAIGAON | 4HF/3 | 39320 | 3400 | 333 |
| 274 | BRPL | BOANGAIGAON | 4HF/3 | 39320 | 3400 | 333 |
| 275 | BRPL | BOANGAIGAON | OZ/1 | 780 | 30 | 500 |
| 276 | BRPL | BOANGAIGAON | OZ/1 | 780 | 30 | 500 |
| 277 | BRPL | BOANGAIGAON | 2HC/1 | 7077 | 385 | 325 |
| 278 | BORL | BINA | 2HB/1 | 5907 | 265 | 485 |
| 279 | BORL | BINA | 2HB/1 | 5907 | 265 | 485 |
| 280 | BORL | BINA | 2HB/1 | 14639 | 320 | 485 |
| 281 | BORL | BINA | 2HB/1 | 14639 | 320 | 485 |
| 282 | BORL | BINA | 4HF/2 | 413407 | 3400 | 333 |
| 283 | BORL | BINA | 4HF/2 | 413407 | 3400 | 333 |
| 284 | CPCL | CHENNAI | 2HD/1 | 18148 | 750 | 325 |
| 285 | CPCL | CHENNAI | 2HD/1 | 18148 | 750 | 325 |
| 286 | CPCL | CHENNAI | 2HA/1 | 5762 | 170 | 525 |
| 287 | CPCL | CHENNAI | 2HA/1 | 5762 | 170 | 525 |
| 288 | RCF | CHEMBUR | 4HB/3 | 2471 | 450 | 425 |
| 289 | IOCL | MATHURA | 2HB/2 | 1980 | 240 | 485 |
| 290 | IOCL | MATHURA | 2HB/2 | 1980 | 240 | 485 |

# REFERENCE LIST OF RECIPROCATING COMPRESSORS SUPPLIED BY BHARAT PUMPS & COMPRESSORS LIMITED

NAINI, ALLAHABAD - INDIA

| SL NO | PURCHASER | LOCATION | MODEL | CAPACITY ($NM^3/HR$) | ABSORBED POWER (KW) | SPEED (RPM) |
|---|---|---|---|---|---|---|
| 291 | IOCL | MATHURA | 2HD/1 | 19826 | 550 | 325 |
| 292 | IOCL | MATHURA | 2HD/1 | 19826 | 550 | 325 |
| 293 | IOCL | PANIPAT | 2HC/1 | 16900 | 490 | 325 |
| 294 | IOCL | PANIPAT | 2HC/1 | 16900 | 490 | 325 |

# REFERENCE LIST OF RECIPROCATING COMPRESSORS SUPPLIED BY BHARAT PUMPS & COMPRESSORS LIMITED

NAINI, ALLAHABAD - INDIA

| SL NO | PURCHASER | LOCATION | MODEL | CAPACITY ($NM^3/HR$) | ABSORBED POWER (KW) | SPEED (RPM) |
|---|---|---|---|---|---|---|
| 295 | IOCL | VADODARA | 2HE/1 | 32840 | 995 | 290 |
| 296 | IOCL | VADODARA | 2HE/1 | 32840 | 995 | 290 |
| 297 | IOCL | VADODARA | 2HD/1 | 17596 | 700 | 290 |
| 298 | IOCL | VADODARA | 2HD/1 | 17596 | 700 | 290 |
| 299 | BPCL | KOCHI | 2HE1 | 40047 | 1050 | 325 |
| 300 | BPCL | KOCHI | 2HE1 | 40047 | 1050 | 325 |
| 301 | IOCL | BARAUNI | 2HC/1 | 14822 | 450 | 325 |
| 302 | IOCL | BARAUNI | 2HC/1 | 14822 | 450 | 325 |
| 303 | IOCL | BARAUNI | 2HD/2 | 9842 | 700 | 325 |
| 304 | IOCL | BARAUNI | 2HD/2 | 9842 | 700 | 325 |
| 305 | CPCL | CHENNAI | OZ/2 | 22 | 11 | 500 |
| 306 | CPCL | CHENNAI | OZ/2 | 22 | 11 | 500 |
| 307 | CPCL | CHENNAI | OZ/1 | 758 | 37 | 375 |
| 308 | CPCL | CHENNAI | OZ/1 | 758 | 37 | 375 |
| 309 | CPCL | CHENNAI | OZ/1 | 268 | 30 | 500 |
| 310 | CPCL | CHENNAI | OZ/1 | 268 | 30 | 500 |
| 311 | CPCL | CHENNAI | OZ/1 | 349 | 18.5 | 375 |
| 312 | CPCL | CHENNAI | OZ/1 | 349 | 18.5 | 375 |
| 313 | CPCL | CHENNAI | 4HF/2 | 38071 | 3000 | 333 |
| 314 | CPCL | CHENNAI | 4HF/2 | 38071 | 3000 | 333 |
| 315 | CPCL | CHENNAI | 2HC/2 | 5005 | 400 | 365 |
| 316 | CPCL | CHENNAI | 2HC/2 | 5005 | 400 | 365 |
| 317 | CPCL | CHENNAI | 2HC/2 | 4504 | 240 | 365 |
| 318 | CPCL | CHENNAI | 2HC/2 | 4504 | 240 | 365 |
| 319 | CPCL | CHENNAI | 2HC/1 | 16402 | 285 | 325 |
| 320 | CPCL | CHENNAI | 2HC/1 | 16402 | 285 | 325 |
| 321 | CPCL | CHENNAI | OZ/1 | 561 | 30 | 500 |
| 322 | CPCL | CHENNAI | OZ/1 | 561 | 30 | 500 |
| 323 | NATIONAL IRANIAN OIL CO. | LAVAN ISLAND | 2HC/1 | 11244 | 450 | 365 |
| 324 | NATIONAL IRANIAN OIL CO. | LAVAN ISLAND | 2HC/1 | 11244 | 450 | 365 |
| 325 | NATIONAL IRANIAN OIL CO. | LAVAN ISLAND | 2HC/2 | 7493 | 500 | 365 |
| 326 | NATIONAL IRANIAN OIL CO. | LAVAN ISLAND | 2HC/2 | 7493 | 500 | 365 |
| 327 | NATIONAL IRANIAN OIL CO. | LAVAN ISLAND | 2HE/1 | 37672.5 | 925 | 450 |
| 328 | NATIONAL IRANIAN OIL CO. | LAVAN ISLAND | 2HE/1 | 37672.5 | 925 | 450 |
| 329 | OIL INDIA LIMITED | DULIAJAN | 2HM/2 | 3200 | 270 | 900 |
| 330 | OIL INDIA LIMITED | DULIAJAN | 2HM/2 | 3200 | 270 | 900 |
| 331 | OIL INDIA LIMITED | DULIAJAN | 2HM/2 | 3200 | 270 | 900 |
| 332 | OIL INDIA LIMITED | DULIAJAN | 2HM/2 | 3200 | 270 | 900 |
| 333 | OIL INDIA LIMITED | DULIAJAN | 2HM/2 | 2700 | 300 | 900 |
| 334 | OIL INDIA LIMITED | DULIAJAN | 2HM/2 | 2700 | 300 | 900 |
| 335 | OIL INDIA LIMITED | DULIAJAN | 2HM/2 | 2700 | 300 | 900 |
| 336 | OIL INDIA LIMITED | DULIAJAN | 2HM/2 | 2700 | 300 | 900 |
| 337 | OIL INDIA LIMITED | DULIAJAN | 2HM/2 | 2700 | 300 | 900 |

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NAINI, ALLAHABAD - INDIA

| SL NO | PURCHASER | LOCATION | MODEL | CAPACITY ($NM^3/HR$) | ABSORBED POWER (KW) | SPEED (RPM) |
|---|---|---|---|---|---|---|
| 338 | OIL INDIA LIMITED | DULIAJAN | 2HM/2 | 2700 | 300 | 900 |
| 339 | L&T / ONGC | HAZIRA | 2HD/1 | 22539 | 680 | 365 |
| 340 | L&T / ONGC | HAZIRA | 2HD/1 | 22539 | 680 | 365 |
| 341 | EIL / GSPC | MALLVARAM | 4HD/4 | 2260 | 650 | 325 |
| 342 | EIL / GSPC | MALLVARAM | 4HD/4 | 2260 | 650 | 325 |
| 343 | BHEL / BCPL | LAPETKATA | 2HC/1 | 6878 | 450 | 365 |
| 344 | BHEL / BCPL | LAPETKATA | 2HC/1 | 6878 | 450 | 365 |
| 345 | EIL / BCPL | LAPETKATA | 2HA/1 | 13984 | 170 | 595 |
| 346 | L&T / ONGC | URAN | 2HC/1 | 13670 | 415 | 325 |
| 347 | L&T / ONGC | URAN | 2HC/1 | 13670 | 415 | 325 |
| 348 | TECHNIMONT / OPAL | DAHEJ | 4HB/3 | 174.2 | 335 | 365 |
| 349 | TECHNIMONT / OPAL | DAHEJ | 4HB/3 | 174.2 | 335 | 365 |

# BPCL PAST SUPPLY REFERENCE LIST FOR MUD PUMPS USED FOR DRILLING SERVICES

| BPC Sale-Order Number | Working Pressure Kg/Sq.Cm | Pump Model | | Pump Speed (RPM) | Driver Type | Driver Power | Quantity of Pumps | Name Of Customer |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| | | | | | | | | |
| 001-01 | 45.7 | D-323 | 33-5R | 216 | Elect. Motor | | 2 | H&G |
| 002-01 | 351.5 | 1700-P | 1700-P | 65 | | | 4 | ONGC |
| 003-01 | 125.1 | D-323 | 33-5 | 476 | | | 1 | H&G |
| 004-01 | 59.8 | D323-ST | 33-5RSL | 410 | | | 6 | ONGC |
| 005-01 | 59.8 | D323-ST | 33-5RSL | 325 | | | 4 | ONGC |
| 005-02 | 16.2 | A-344 | 43-7R | 365 | | | 1 | ONGC |
| 005-03 | 63.3 | 356-PD | 63-10R | 203 | | | 4 | ONGC |
| 006-01 | 119.5 | D-323 | 33-5 | 350 | | | 1 | HSL |
| 007-01 | 38.7 | D-323 | 33-5 | 160 | | | 1 | NOCIL |
| 008-01 | 165.2 | 336-P | 63-10R | 270 | | | 1 | BARC, Bombay |
| 009-01 | 300.2 | D313-PO | 33-5R | 367 | | | 4 | FCI |
| 010-01 | 125.1 | D-323 | 33-5 | 104 | | | 1 | BARG |
| 011-01 | 208.1 | B-538 | 85-25 | 178 | Elect. Motor | 400.0 KW | 4 | BPCL |
| 012-01 | 60.5 | D323-ST | 33-5RSL | 410 | | | 8 | ONGC |
| 013-01 | 158.2 | 336-P | 63-10R | 320 | | | 3 | OIL |
| 014-01 | 63.3 | 356-PD | 63-10R | | | | 1 | OIL |
| 015-01 | 281.9 | A700-P | A700-P | 65 | | | 10 | ONGC |
| 016-01 | 351.5 | A1400-PT | A-1400PT | 150 | | | 2 | ONGC |
| 017-01 | 59.8 | A 368-D | 83-20R | 150 | | | 3 | ONGC |
| 018-01 | 59.8 | D323-ST | 33-5RSL | 325 | | | 1 | ONGC |
| 019-01 | 351.5 | A1400-PT | A-1400PT | 150 | | | 8 | BHEL |
| 019-02 | 351.5 | A850-PT | A850-PT | 160 | | | 6 | BHEL |
| 020-01 | 59.8 | A 368-D | 83-20R | 150 | | | 3 | ONGC |
| 020-02 | 59.8 | 356-PD | 63-10R | 203 | | | 6 | ONGC |
| 023-01 | 63.3 | D-323 | 33-5 | 100 | | | 1 | HLL, Bombay |
| 023-02 | 63.3 | D-323 | 33-5 | 200 | | | 1 | HLL, Bombay |
| 025-01 | 237.6 | A1400-PT | A1400-PT | 150 | | | 5 | ONGC |
| 026-01 | 59.8 | A 368-D | 83-20R | 188 | | | 2 | ONGC |
| 027-01 | 59.8 | D323-ST | 33-5RSL | 325 | | | 4 | ONGC |
| 028-01 | 25.3 | 356-PD | 63-10R | 206 | | | 2 | Balco korba |
| 029-01 | 35.5 | 356-PD | 63-10R | 250 | | | 2 | OIL |
| 030-01 | 63.6 | 356-PD | 63-10R | 250 | | | 4 | OIL |
| 035-01 | 351.5 | A1100-PT | A1100-PT | 150 | | | 2 | OIL |
| 049-01 | 112.5 | D-323 | 33-5 | 300 | | | 1 | BARC |
| 055-01 | 250.0 | A-324 | 43-7R | 364 | | | 1 | RSP |
| 068-01 | 160.3 | D-323 | 33-5R | 202 | | | 1 | KSB |
| 069-01 | 49.2 | D-323 | 33-5R | 367 | | | 2 | IEL |
| 070-01 | 168.7 | 336-P | 63-10R | 269 | Elect. Motor | 125.0 HP | 4 | PPED(BARC) For Narora Project |
| 071-01 | 158.9 | A-336 | 63-10 | 296 | Elect. Motor | 180 HP | 13 | OIL |

# BPCL PAST SUPPLY REFERENCE LIST FOR MUD PUMPS USED FOR DRILLING SERVICES

| BPC Sale-Order Number | Working Pressure Kg/Sq.Cm | Pump Model | | Pump Speed (RPM) | Driver Type | Driver Power | Quantity of Pumps | Name Of Customer |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| 072-01 | 66.8 | A-334 | 43-7 | 374 | | | 1 | BBL |
| 075-01 | 161.7 | A-336 | 63-10 | 183 | Elect. Motor | 100 HP | 1 | UIL |
| 078-01 | 250.2 | A-316 | 63-10 | 320 | Elect. Motor | 170 HP | 1 | ONGC |
| 089-01 | 250.0 | A-324 | 43-7R | 364 | Elect. Motor | 100.0 HP | 1 | RSP |
| 094-01 | 199.7 | D-323 | 33-5 | 100 | | | 1 | RSP |
| 094-02 | 74.2 | D-323 | 33-5 | 291 | | | 2 | RSP |
| 102-01 | 169.9 | A-536 | 65-10 | 318 | Elect. Motor | 283.0 HP | 1 | ONGC |
| 103-01 | 250.3 | A-316 | 63-10 | 320 | Elect. Motor | 170.0 HP | 1 | ONGC |
| 105-01 | 60.0 | D323-ST | 33-5RSL | 328 | Elect. Motor | 40.0 HP | 8 | ONGC |
| 106-01 | 90.0 | A700-P | A700-P | 65 | | | 6 | ONGC |
| 112-01 | 200.4 | D-323 | 33-5 | 480 | Elect. Motor | 60.0 HP | 1 | BHEL |
| 114-01 | 60.0 | D323-ST | 33-5RSL | 330 | Elect. Motor | 40.0 HP | 2 | ONGC |
| 115-01 | 300.2 | D313-PO | 33-5 | 239 | Elect. Motor | 30.0 HP | 1 | HFCL, Barunai |
| 115-02 | 57.9 | D-323 | 33-5 | 313 | Elect. Motor | 25.0 HP | 1 | HFCL, Barunai |
| 116-01 | 157.5 | A-324 | 43-7R | 352 | Elect. Motor | 100.0 HP | 1 | Dunlap India |
| 117-01 | 60.0 | 356-PD | 63-10R | 206 | Elect. Motor | 125.0 HP | 2 | ONGC |
| 118-01 | 200.4 | D-323 | 33-5 | 400 | Elect. Motor | 60.0 HP | 5 | ONGC |
| 124-01 | 60.0 | D323-ST | 33-5RSL | 410 | Elect. Motor | 50.0 HP | 3 | ONGC |
| 129-01 | 60.0 | D323-ST | 33-5RSL | 325 | Elect. Motor | 40.0 HP | 26 | ONGC |
| 129-02 | 200.4 | D-323 | 33-5 | 400 | Elect. Motor | 60.0 HP | 9 | ONGC |
| 129-03 | 100.0 | D-323 | 33-5 | 225 | Elect. Motor | 60.0 HP | 14 | ONGC |
| 132-01 | 63.3 | D-323 | 33-5 | 200 | | | 1 | HLL |
| 132-02 | 63.3 | D-323 | 33-5 | 100 | | | 1 | HLL |
| 138-01 | 298.8 | D313-PO | 33-5R | 367 | | | 2 | FPDIL |
| 152-01 | 249.9 | A-324 | 43-7R | 364 | | | 1 | RSP |
| 10156-01 | 123.0 | A-336 | 63-10 | 300 | | | 1 | Burn & Co. |
| 10162-01 | 159.9 | 336-P | 63-10R | 320 | | | 3 | OIL |
| 10185-01 | 63.3 | D-323 | 33-5 | 200 / 100 | | | 1 | HLL |
| 10198-01 | 351.5 | A1400-PT | A1400-PT | 50 / 150 | | | 5 | ONGC, Sibsagar |
| 10200-01 | 315.1 | A1100-PT | A1100-PT | 50 /150 | | | 8 | ONGC |
| 10201-01 | 63.3 | D-323 | 33-5 | 100 | | | 1 | HLL |
| 10213-01 | 56.94/27.98 | A356-D | 63-10 | 250 | Elect. Motor | 120.0 HP | 2 | OIL |
| 10219-01 | 200.0 | A-324 | 43-7 | 340 | | | 1 | BASL |
| 10226-01 | 49.0 | 356-PD | 63-10R | 206 | Elect. Motor | 125.0 HP | 3 | ONGC |
| 10226-02 | 60.0 | D323-ST | 33-5RSL | 325 | Elect. Motor | 40.0 HP | 1 | ONGC |
| 10238-01 | 180.0 | A-334 | 43-7 | 313 | | | 6 | RCF |
| 10239-01 | 34.0 | D-323 | 33-5 | 204 | | | 2 | FPDIL |
| 10252-01 | 315.11/140.05 | A1100-PT | A1100-PT | 50 to 150 | | | 8 | BHEL |
| 10253-01 | 250.64/108.83 | A850-PT | A850-PT | 50 to 150 | | | 2 | BHEL |
| 10254-01 | 351.53/178.57 | A1400-PT | A1400-PT | 50 to 150 | | | 2 | BHEL |

# BPCL PAST SUPPLY REFERENCE LIST FOR MUD PUMPS USED FOR DRILLING SERVICES

| BPC Sale-Order Number | Working Pressure Kg/Sq.Cm | Pump Model | | Pump Speed (RPM) | Driver Type | Driver Power | Quantity of Pumps | Name Of Customer |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| 10256-01 | 180.0 | A-334 | 43-7 | 313 | | | 3 | KRIBHCO |
| 10282-01 | 73.11/35.50 | 356-PD | 63-10R | 250 | | | 3 | OIL |
| 10289-01 | 250.64/111.36 | A850-PT | A850-PT | 50 to 150 | | | 4 | ONGC |
| 10296-01 | 250.64/111.36 | A850-PT | A850-PT | 50 to 150 | | | 12 | ONGC |
| 10312-01 | 148.3 | A850-PT | A850-PT | 160 | | | 1 | ONGC |
| 10320-01 | 160.8 | A1100-PT | A1100-PT | 150 | | | 6 | BHEL |
| 10321-01 | 289.0 | A850-PT | A850-PT | 160 | | | 6 | BHEL |
| 10330-01 | 168.7 | 336-P | 63-10R | 270 | Elect. Motor | 125.0 HP | 4 | BARC for Kakarpara Atomic Power Plant |
| 10341-01 | 159.9 | 336-P | 63-10R | 320 | | | 8 | OIL |
| 10355-01 | 127.9 | A850-PT | A850-PT | 160 | | | 1 | ONGC |
| 10356-01 | 160.8 | A1100-PT | A1100-PT | 150 | | | 2 | ONGC |
| 10391-01 | 250.3 | A-316 | 63-10 | 320 | | | 3 | ONGC |
| 10396-01 | 158.9 | A-336 | 63-10 | 320 | | | 3 | OIL |
| 10398-01 | 127.9 | A850-PT | A850-PT | 160 | | | 4 | BHEL |
| 10398-02 | 160.8 | A1100-PT | A1100-PT | 150 | | | 4 | BHEL |
| 10398-03 | 204.9 | A1400-PT | A1400-PT | 150 | | | 2 | BHEL |
| 10398-04 | 204.9 | A1400-PT | A1400-PT | 150 | | | 2 | BHEL |
| 10403-01 | 168.7 | 336-P | 63-10R | 270 | Elect. Motor | 125.0 HP | 1 | DAE for RAPP Kota |
| 10408-01 | 27.98/28.89 | A356-D | 63-10 | 250 | Elect. Motor | 120.0 HP | 2 | OIL |
| 10410-01 | 100.0 | C 368-FS | 83-20R | 213 | | | 4 | OIL |
| 10411-01 | 158.9 | 336-P | 63-10R | 320 | | | 1 | OIL |
| 10422-01 | 58.0 | 356-PD | 63-10R | 206 | Elect. Motor | 90.0 kw | 1 | ONGC |
| 10425-01 | 126.8 | A600-PT | A600-PT | 175 | | | 2 | OIL |
| 10427-01 | 170.0 | A-536 | 65-10 | 313 | Elect. Motor | 283 HP | 4 | ONGC |
| 10431-01 | 150.0 | A-324 | 43-7 | 275 | Elect. Motor | 60.0 HP | 3 | ONGC |
| 10432-01 | 56.9 | 356-PD | 63-10R | 207 | Elect. Motor | 90.0 kw | 6 | ONGC |
| 10452-01 | of broken pumps supplied against s/o 10 | | | | | | | ONGC |
| 10453-01 | 62.0 | D323-ST | 33-5RSL | 415 | Elect. Motor | 50.0 HP | 2 | ONGC sibsager |
| 10454-01 | 126.6 | D-323 | 33-5 | 334 | | | 1 | ISCO Burnpur |
| 10455-01 | 237.7 | A1400-PT | A1400-PT | 150 | | | 1 | ONGC |
| 10456-01 | 183.7 | A-334 | 43-7 | 313 | | | 2 | IGFCL |
| 10457-01 | 183.7 | A-334 | 43-7 | 313 | | | 2 | IFFCO Aonla |
| 1086002-01 | 150.0 | A-334 | 43-7 | 336 | Elect. Motor | 67 kw | 2 | ONGC Balol |
| 1086003-01 | 150.0 | A-334 | 43-7 | 336 | Elect. Motor | 75 kw | 3 | ONGC Lanva |
| 1086004-01 | 155.5 | A-324 | 43-7 | 260 | Elect. Motor | 37 kw | 2 | ONGC Baroda |
| 1086004-02 | 155.5 | D-323 | 33-5 | 270 | Elect. Motor | 30 HP | 1 | ONGC Baroda |
| 1086005-01 | 237.7 | A1400-PT | A1400-PT | 150 | | | 1 | ONGC Rajamundri |
| 1086006-01 | 160.8 | A1100-PT | A1100-PT | 150 | | | 4 | BHEL |
| 1086007-01 | 56.03/98.0 | A-336 | 63-10 | 211 | Elect. Motor | 75.0 kw | 2 | ONGC Nazira |

# BPCL PAST SUPPLY REFERENCE LIST FOR MUD PUMPS USED FOR DRILLING SERVICES

| BPC Sale-Order Number | Working Pressure Kg/Sq.Cm | Pump Model | | Pump Speed (RPM) | Driver Type | Driver Power | Quantity of Pumps | Name Of Customer |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| 1086008-01 | 93.2 | A600-PT | A600-PT | 175 | | | 1 | ONGC |
| 1086009-01 | Modification of A850-PT SUPPLIED AGAINST S/O 10296-01 | | | | | | | ONGC |
| 1086010-01 | 49.0 | 356-PD | 63-10R | 206 | Elect. Motor | 125.0 HP ** | 2 | ONGC |
| 1086011-01 | 127.9 | A850-PT | A850-PT | 60 | | | 6 | BHEL |
| 1086012-01 | 170.0 | A-536 | 65-10 | 318 | Elect. Motor | 283 HP | 2 | ONGC |
| 1087001-01 | 75.2 | C 558-ST | 85-25 | 146 | Elect. Motor | 400 kw | 4 | ONGC |
| 1087002-01 | 100.0 | A-324 | 43-7R | 237 | Elect. Motor | 45.0 kw | 3 | ONGC Baroda |
| 1087003-01 | 56.9 | 356-PD | 63-10R | 207 | Elect. Motor | 90.0 kw | 2 | ONGC |
| 1087004-01 | 160.8 | A1100-PT | A1100-PT | 150 | | | 4 | BHEL |
| 1087005-01 | 55.0 | 356-PD | 63-10R | 190 / 206 | Elect. Motor | 90/110 kw | 9 | ONGC |
| 1087006-01 | 75.2 | C 558-ST | 85-25 | 146 | Elect. Motor | 400 kw | 16 | ONGC thru EIL |
| 1087007-01 | 27.0 | A-344 | 43-7R | 227 | Elect. Motor | 22 kw | 2 | ONGC thru EIL |
| 1087007-02 | 61.0 | B 368-D | 83-20R | 96 | Elect. Motor | 110 kw | 3 | ONGC thru EIL |
| 1087008-01 | 62.0 | D323-ST | 33-5RSL | 415 | Elect. Motor | 50.0 HP | 1 | ONGC |
| 1087009-01 | 56.9 | 356-PD | 63-10R | 207 | Elect. Motor | 90.0 kw | 1 | ONGC |
| 1088001-01 | 93.2 | B600-PT | B600-PT | 175 | | | 4 | BHEL Hyderabad |
| 1088002-01 | 60.0 | D323-ST | 33-5RSL | 329 | Elect. Motor | 40.0 HP | 2 | ONGC Baroda |
| 1088003-01 | 160.8 | A1100-PT | A1100-PT | 150 | | | 1 | ONGC Madras |
| 1088004-01 | 84.4 | A400-PT | A400-PT | 175 | | | 4 | BHEL Hyderabad |
| 1088005-01 | 250.0 | A-316 | 63-10 | 320 | Elect. Motor | 132.0 kw | 1 | ONGC |
| 1088006-01 | 200.0 | 336-P | 63-10R | 208 | Elect. Motor | 78.0 kw | 3 | NPCIL, Bombay |
| 1088007-01 | 160.8 | A1100-PT | A1100-PT | 150 | | | 8 | BHEL Hyderabad |
| 1088008-01 | 56.03/98.07 | A-336 | 63-10 | 211 | | | 1 | ONGC Bombay |
| 1089001-01 | 148.3 | A850-PT | A850-PT | 160 | | | 2 | ONGC Madras |
| 1089002-01 | 168.7 | 336-P | 63-10R | 270 | | | 8 | BARC for KAIGA & RAPP 3&4 Projects |
| 1089003-01 | 162.1 | A-324 | 43-7 | 247 | Elect. Motor | 37.0 kw | 2 | IOCL thru EIL |
| 1089004-01 | 26.0 | D323-ST | 33-5RSL | 205 | Elect. Motor | 9.3 kw | 2 | IOCL thru EIL |
| 1089005-01 | 204.9 | A1700-PT | A1700-PT | 150 | | | 2 | BHEL Hyderabad |
| 1089006-01 | 300.0 | D-323 | 33-5R | 367 | | | 1 | HFCL Namrup |
| 1089007-01 | 175.0 | D-323 | 33-5 | 203 | Elect. Motor | 11.0 kw | 1 | IOCL, Baroda thru EIL |
| 1089007-02 | 181.7 | A-336 | 63-10 | 200 | Elect. Motor | 75.0 kw | 2 | IOCL, Baroda thru EIL |
| 1089007-03 | 47.9 | D-323 | 33-5 | 384 | Elect. Motor | 30.0 kw | 2 | IOCL. Baroda thru EIL |
| 1089008-01 | 150.03/99.97 | D-323 | 33-5R | 330 | Elect. Motor | 30.0 kw | 3 | ONGC Ahmedabad |
| 1089008-02 | 150.03/99.97 | 336-P | 63-10R | 270 | Elect. Motor | 110.0 kw | 3 | ONGC Ahmedabad |
| 1089009-01 | 204.9 | A1700-PT | A1700-PT | 150 | | | 2 | BHEL Hyderabad |
| 1090001-01 | 127.9 | A850-PT | A850-PT | 150 | | | 2 | BHEL Hyderabad |
| 1090002-01 | 160.8 | A1100-PT | A1100-PT | 150 | | | 4 | BHEL Hyderabad |
| 1090003-01 | 87.5 | D-323 | 33-5 | 280 | Elect. Motor | 30.0 kw | 2 | G.A.I.L |
| 1090004-01 | 275.0 | D-323 | 33-5 | 152 | Elect. Motor | 15.0 kw | 2 | BARC, Bombay |

# BPCL PAST SUPPLY REFERENCE LIST FOR MUD PUMPS USED FOR DRILLING SERVICES

| BPC Sale-Order Number | Working Pressure Kg/Sq.Cm | Pump Model | | Pump Speed (RPM) | Driver Type | Driver Power | Quantity of Pumps | Name Of Customer |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| 1090006-01 | 120.0 | 336-P | 63-10R | 270 | Elect. Motor | 110 kw | 12 | ONGC Baroda |
| 1090006-02 | 64.0 | A356-D | 63-10 | 196 | Elect. Motor | 75 kw | 7 | ONGC Baroda |
| 1090006-03 | 64.0 | A356-D | 63-10 | 260 | Elect. Motor | 110 kw | 2 | ONGC Baroda |
| 1090006-04 | 10.0 | D-323 | 33-5R | 365 | Elect. Motor | 7.5 kw | 4 | ONGC Baroda |
| 1091001-01 | 172.0 | A-334 | 43-7 | 297 | Elect. Motor | 60.0 kw | 2 | Chambal Fertilizer |
| 1091003-01 | 172.0 | A-334 | 43-7 | 297 | | | 2 | Tata Fertilizer |
| 1091004-01 | 77.7 | D-323 | 33-5 | 312 | | | 2 | Tata Fertilizer |
| 1091005-01 | 48.2 | A-324 | 43-7 | 229 | Elect. Motor | 5.5 kw | 2 | GAIL Vaghodia thru EIL |
| 1091006-01 | 55.0 | D-323 | 33-5 | 240 | Elect. Motor | 18.5 kw | 2 | IOCL Mathura thru EIL |
| 1091007-01 | 240.1 | 316-P | 63-10R | 270 | Elect. Motor | 110.0 kw | 14 | ONGC Nazira |
| 1091008-01 | | A850-PT | Assly of BHEL Make A 850-PT Pump | | | | | BHEL Hyderabad |
| 1091009-01 | 54.8 | D-323 | 33-5 | 200 | Elect. Motor | 15.0 kw | 2 | HLL Bombay |
| 1091009-02 | 58.5 | D-323 | 33-5 | 100 | Elect. Motor | 7.5 kw | 1 | HLL Bombay |
| 1092001-01 | 242.6 | 316-P | 63-10R | 270 | Elect. Motor | 110.0 kw | 9 | ONGC Nazira |
| 1092002-01 | 88.6 | D-323 | 33-5 | 200 | Elect. Motor | 30.0 kw | 1 | GAIL Guna |
| 1092004-01 | 54.8 | D-323 | 33-5 | 200 | | | 2 | HLL Bombay |
| 1092004-02 | 58.5 | D-323 | 33-5 | 100 | | | 1 | HLL Bombay |
| 1092006-01 | 179.0 | A-334 | 43-7 | 297 | Elect. Motor | 55 kw | 2 | Bindal Agro |
| 1093001-01 | 180.0 | A-536 | 65-10 | 314 | Elect. Motor | 245 kw | 3 | ONGC Baroda |
| 1093003-01 | 176.0 | A-536 | 65-10 | 233 | Elect. Motor | 132 kw | 3 | ONGC Baroda |
| 1093004-01 | 177.0 | A-536 | 65-10 | 224 | Elect. Motor | 200 kw | 4 | ONGC Baroda |
| 1093006-01 | 69.0 | D-323 | 33-5 | 292 | Elect. Motor | 22 kw | 1 | IOCL Haldia |
| 1093007-01 | 160.0 | 336-P | 63-10R | 320 | Gas Engine | 177 HP | 2 | OIL Duliajan |
| 1093008-01 | 64.0 | 346-P | 63-10R | 268 | Elect. Motor | 93 kw | 9 | ONGC Mehsana |
| 1093009-01 | 186.5 | A1100-PT | A1100-PT | 150 | Elect. Motor (2 No.) | 950 HP | 1 | ONGC Baroda |
| 1094001-01 | 126.0 | A334-H | 43-8 | 337 | Elect. Motor | 75 kw | 8 | ONGC Balol & Santhal thru EIL |
| 1094002-01 | 54.97/74.24 | A356-D | 63-10 | 228 | Elect. Motor | 125 kw | 10 | ONGC Baroda |
| 1094002-02 | 160.0 | 336-P | 63-10R | 269 | Elect. Motor | 125 kw | 3 | ONGC Baroda |
| 1094005-01 | 200.0 | D-323 | 33-5 | 400 | Elect. Motor | 45 kw | 1 | BPCL GCM Plant |
| 1094006-01 | 63.27/104.05 | C 348-FS | 83-20R | 225 | Gas Engine | | 2 | OIL Duliajan |
| 1094007-01 | 210.9 | A-336 | 63-10 | 258 | Elect. Motor | 110.0 kw | 1 | EWAC Alloys |
| 1094008-01 | 240.0 | A-316 | 63-10 | 270 | Elect. Motor | 110.0 kw | 12 | ONGC sibsager |
| 1095001-01 | 164.0 | A326-PO | 63-10 | 254 | Elect. Motor | 75.0 kw | 2 | IOCL Panipat thru EIL |
| 1095001-02 | 179.0 | D-323 | 33-5 | 287 to 86 | Elect. Motor | 18.5 kw | 1 | IOCL Panipat thru EIL |
| 1095003-01 | 210.0 | D-323 | 33-5 | 361 | Elect. Motor | 37.0 kw | 2 | GAIL Auraiya thru EIL |
| 1095003-02 | 195.0 | A324-H | 43-8 | 350 | Elect. Motor | 90.0 kw | 2 | GAIL Auraiya thru EIL |
| 1095004-01 | 122.0 | A-334 | 43-7 | 350 | Elect. Motor | 75.0 kw | 2 | ONGC thru TRIUNE |
| 1095005-01 | 128.5 | D-323 | 33-5 | 333 | Elect. Motor | 37.0 kw | 2 | IOCL Baruni thru EIL |
| 1095006-01 | 54.0 | D-323 | 33-5 | 261 | Elect. Motor | 11.0 kw | 2 | IOCL Panipat thru EIL |

# BPCL PAST SUPPLY REFERENCE LIST FOR MUD PUMPS USED FOR DRILLING SERVICES

| BPC Sale-Order Number | Working Pressure Kg/Sq.Cm | Pump Model | | Pump Speed (RPM) | Driver Type | Driver Power | Quantity of Pumps | Name Of Customer |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| 1096001-01 | 200.0 | B-538 | 85-25 | 189 | Elect. Motor | 360.0 kw | 1 | SAIL Bokaro |
| 1096002-01 | 61.02/84.01 | D-323 | 33-5 | 336 | Elect. Motor | 37.0 kw | 2 | HLL Bombay |
| 1096002-02 | 60.53/84.01 | D-323 | 33-5 | 344 | Elect. Motor | 22.0 kw | 1 | HLL Bombay |
| 1096003-01 | 47.6 | D-323 | 33-5 | 310 | Elect. Motor | 22.0 kw | 2 | GAIL Usar |
| 1096004-01 | 160.0 | 336-P | 63-10R | 320 | Gas Engine | 177.0 HP | 1 | OIL Duliajan |
| 1096005-01 | 132.0 | A334-H | 43-8 | 340 to 102 | Elect. Motor | 110.0 kw | 2 | IOCL Digboi thru EIL |
| 1097001-01 | 165.9 | A-324 | 43-7 | 259 | Elect. Motor | 45.0 kw | 2 | IOCL Numaligarh |
| 1097001-02 | 180.4 | D-323 | 33-5 | 236 | Elect. Motor | 15.0 kw | 1 | IOCL Numaligarh |
| 1097002-01 | 60.5 | D323-ST | 33-5 SL | 325 | Elect. Motor | 30.0 kw | 2 | ONGC Ahmedabad |
| 1097003-01 | 159.0 | 336-P | 63-10R | 320 | Gas Engine | 177.0 HP | 1 | OIL Duliajan |
| 1097004-01 | 175.8 | A-324 | 43-7 | 347 | Elect. Motor | 55.0 kw | 2 | IOCL Mathura thru EIL |
| 1097004-02 | 189.2 | D-323 | 33-5 | 233 | Elect. Motor | 15.0 kw | 1 | IOCL Mathura thru EIL |
| 1097004-03 | 45.0 | D-323 | 33-5 | 261 | Elect. Motor | 11.0 kw | 2 | IOCL Mathura thru EIL |
| 1098001-01 | 160.0 | A-334 | 43-7 | 341 | Elect. Motor | 75.0 kw | 3 | ONGC Baroda |
| 1098002-01 | 300.0 | D313-PO | 33-5R | 367 | Elect. Motor | 55.0 kw | 1 | FCI Sindri |
| 1098003-01 | 141.0 | D-323 | 33-5 | 350 to 120 | Elect. Motor | 30.0 kw | 2 | IOCL Haldia |
| 1098004-01 | 60.0 | D323-ST | 33-5RSL | 328 | Elect. Motor | 30.0 kw | 16 | ONGC Ahmedabad |
| 1098005-01 | 69.0 | D-323 | 33-5 | 295 to 100 | | | 1 | IOCL Haldia |
| 1099001-01 | 121.0 | A-334 | 43-7 | 341 | Elect. Motor | 55.0 kw | 2 | ONGC Kathna thru PPCL |
| 1099002-01 | 170.0 | A-336 | 63-10 | 243 | Elect. Motor | 110.0 kw | 2 | ONGC Ahmedabad |
| 1099003-01 | 60.0 | A-346 | 63-10 | 259 | Elect. Motor | 110.0 kw | 5 | ONGC thru NICCO |
| 1099004-01 | 170.0 | A-536 | 65-10 | 314 | Elect. Motor | 245.0 kw | 1 | ONGC Ahmedabad |
| 1099005-01 | 159.9 | A-334 | 43-7 | 341 | Elect. Motor | 75.0 kw | 2 | ONGC Ahmedabad |
| 1099006-01 | 160.0 | A-336 | 63-10 | 270 | Elect. Motor | 132.0 kw | 1 | ONGC Ahmedabad |
| 102000001-01 | 70.0 | C 348-FS | 83-20R | 225 | Gas Engine | 188.0 HP | 2 | OIL Duliajan |
| 102000002-01 | 70.0 | C 368-FS | 83-20R | 227 | Gas Engine | 320.0 HP | 2 | OIL Duliajan |
| 102000003-01 | 300.1 | D313-PO | 33-5R | 372 | Elect. Motor | 37.0 kw | 1 | HFCL Namrup thru PDIL |
| 102000003-02 | 34.0 | D-323 | 33-5R | 367 | Elect. Motor | 15.0 kw | 2 | HFCL Namrup thru PDIL |
| 102000004-01 | 300.1 | D313-PO | 33-5R | 372 | Elect. Motor | 37.0 kw | 1 | HFCL Namrup thru PDIL |
| 102000004-02 | 60.0 | D-323 | 33-5R | 367 | Elect. Motor | 22.0 kw | 1 | HFCL Namrup thru PDIL |
| 102000005-01 | 106.4 | D-323 | 33-5 | 119 | Elect. Motor | 15.0 kw | 2 | L&T for IOCL Digboi |
| 102000006-01 | 160.0 | C348-FS | 83-20R | 137 | Gas Engine | 177.0 HP | 5 | OIL Duliajan |
| 102000007-01 | 20.0 | A-344 | 43-7 | 300 | Elect. Motor | 37.0 kw | 3 | ONGC Mehsana |
| 102001001-01 | 200.0 | A-536 | 65-10 | 256 | Elect. Motor | 180.0 kw | 3 | ONGC Baroda |
| 102001002-01 | 120.0 | A334-H | 43-8 | 307 | Elect. Motor | 75.0 kw | 4 | ONGC Ahmedabad |
| 102001003-01 | 58.0 | D-323 | 33-5 | 278 | Elect. Motor | 22.0 kw | 1 | HLL Orai |
| 102001004-01 | 61.0 | D-323 | 33-5 | 336 to 101 | Elect. Motor | 37.0 kw | 2 | HLL Goa |
| 102001004-02 | 60.5 | D-323 | 33-5 | 344 to 100 | Elect. Motor | 22.0 kw | 1 | HLL Goa |
| 102001005-01 | 195.0 | 336-P | 63-10R | 302 | Elect. Motor | 132.0 kw | 4 | NPCIL for TAPP 3 & 4 |

# BPCL PAST SUPPLY REFERENCE LIST FOR MUD PUMPS USED FOR DRILLING SERVICES

| BPC Sale-Order Number | Working Pressure Kg/Sq.Cm | Pump Model | | Pump Speed (RPM) | Driver Type | Driver Power | Quantity of Pumps | Name Of Customer |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| 102002001-01 | 120.0 | A334-H | 43-8 | 350 | Elect. Motor | 90.0 kw | 2 | ONGC,Nazira Thru PDIL |
| 102002002-01 | 157.7 | A-324 | 43-7 | 266 | Elect. Motor | 45.0 kw | 2 | CPCL Chennai Thru EIL |
| 102002002-02 | 184.9 | D-323 | 33-5 | 256 | Elect. Motor | 18.5 kw | 1 | CPCL Chennai Thru EIL |
| 102002003-01 | 61.0 | D-323 | 33-5 | 336 to 101 | Elect. Motor | 37.0 kw | 2 | Aquagel Chem. Goa |
| 102002003-02 | 61.0 | D-323 | 33-5 | 344 to 100 | Elect. Motor | 22.0 kw | 1 | Aquagel Chem. Goa |
| 102002004-01 | 168.0 | 336-P | 63-10R | 270 | Elect. Motor | 100.0 kw | 4 | NPCIL for RAPP 5 & 6 |
| 102002005-01 | 168.0 | 336-P | 63-10R | 270 | Elect. Motor | 100.0 kw | 4 | NPCIL for KAIGA 3 & 4 |
| 102002006-01 | 120.0 | A-334 | 43-7 | 305 | Elect. Motor | 55.0 kw | 2 | ONGC Nazira thru PDIL |
| 102002007-01 | 167.8 | A-536 | 65-10 | 214 | Elect. Motor | 132.0 kw | 2 | BPCL Mumbai thru EIL |
| 102003001-01 | 55.0 | A356-D | 63-10 | 206 | Elect. Motor | 110.0 kw | 1 | ONGC Mehsana |
| 102003002-01 | 36.0 | A356-D | 63-10 | 200 | Elect. Motor | 75.0 kw | 2 | Bridge & Roof for ONGC Gandhar Thru EIL |
| 102003003-01 | 183.3 | D-323 | 33-5 | 307 | Elect. Motor | 22.0 kw | 1 | BPCL Mumbai thru EIL |
| 102003004-01 | 150.0 | A334-H | 43-8 | 348 | Elect. Motor | 75.0 kw | 3 | ONGC Nazira for Rudrasagar |
| 102003005-01 | 55.0 | 356-PD | 63-10R | 206 | Bare Shaft Pump | | 1 | ONGC Mehsana |
| 102003005-02 | 55.0 | A 356-D | 63-10 | 206 | Elect. Motor | 110.0 kw | 2 | ONGC Mehsana |
| 102003006-01 | 240.0 | A-316 | 63-10 | 264 | Elect. Motor | 110.0 kw | 3 | ONGC Nazira |
| 102003007-01 | 120.0 | A-336 | 63-10 | 264 | Elect. Motor | 110.0 kw | 1 | ONGC Ahmedabad |
| 102003007-02 | 120.0 | A334-H | 43-8 | 344 | Elect. Motor | 90.0 kw | 1 | ONGC Ahmedabad |
| 102003007-03 | 60.0 | D323-ST | 33-5SL | 311 | Elect. Motor | 30.0 kw | 1 | ONGC Ahmedabad |
| 102003007-04 | 160.0 | A334-H | 43-8 | 341 | Elect. Motor | 75.0 kw | 4 | ONGC Ahmedabad |
| 102003007-05 | 160.0 | A334-H | 43-8 | 346 | Elect. Motor | 90.0 kw | 2 | ONGC Ahmedabad |
| 102003008-01 | 20.0 | A-344 | 43-7 | 290 | Elect. Motor | 37.0 kw | 4 | ONGC Mehsana |
| 102003008-02 | 55.0 | A 356-D | 63-10 | 206 | Elect. Motor | 110.0 kw | 1 | ONGC Mehsana |
| 102004001-01 | 164.0 | A-536 | 65-10 | 232 | Elect. Motor | 160.0 kw | 1 | IOCL, Panipat |
| 102004002-01 | 80.0 | A-334 | 43-7 | 318 | Elect. Motor | 55.0 kw | 4 | ONGC, Ankleshwar |
| 102004003-01 | 240.0 | 316-P | 63-10R | 270 | Elect. Motor | 110.0 kw | 6 | ONGC, Nazira |
| 102004004-01 | 110.0 | D-323 | 33-5 | 400 | Elect. Motor | | 1 | ONGC, Ahmedabad (Bare Shaft Pump) |
| 102004004-02 | 160.0 | 336-P | 63-10R | 270 | Elect. Motor | | 1 | ONGC, Ahmedabad (Bare Shaft Pump) |
| 102004005-01 | 240.0 | 316-P | 63-10R | 270 | Elect. Motor (not in BPC scope) | 110.0 kw | 4 | ONGC, Nazira (Bare Shaft Pump) |
| 102004005-02 | 240.0 | 316-P | 63-10R | 270 | Elect. Motor | 110.0 kw | 1 | ONGC, Nazira |
| 102005001-01 | 127.9 | A 850-PT | A 850-PT | 150 | Elect. Motor | | 1 | ONGC, Baroda |
| 102005002-01 | 100.0 | A-336 | 63-10 | 256 | Elect. Motor | 110.0 kw | 5 | ONGC, Rajahmundry |
| 102005003-01 | 165.5 | A-324 | 43-7 | 259 | Elect. Motor | 45.0 kw | 1 | NRL, Numaligarh |
| 102005004-01 | 160.0 | A-336 | 63-10 | 270 | Elect. Motor | 125.0 KW | 2 | ONGC, Ahmedabad |
| 102005005-01 | 205.0 | A1400-PT | A1400-PT | 150 | Elect. Motor | | 2 | ONGC, Sibsagar |
| 102005006-01 | 142.0 | A-336 | 63-10 | 299 | Elect. Motor | 125.0 kw | 4 | OIL, Duliajan |
| 102005007-01 | 175.7 | A-324 | 43-7 | 347 | Elect. Motor | 55.0 kw | 2 | IOCL, Mathura |

# BPCL PAST SUPPLY REFERENCE LIST FOR MUD PUMPS USED FOR DRILLING SERVICES

| BPC Sale-Order Number | Working Pressure Kg/Sq.Cm | Pump Model | | Pump Speed (RPM) | Driver Type | Driver Power | Quantity of Pumps | Name Of Customer |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| 102005008-01 | 142.0 | A-336 | 63-10 | 299 | Gas Engine | 140.0 HP | 11 | OIL, Duliajan |
| 102006001-01 | STOCK ORDER | A-356 D / A-336 | 63-10 | y Power End As | | | 6 | |
| 102006002-01 | 205.0 | A 1700-PT | A 1700-PT | 150 | Elect. Motor | 1050 HP, (2 Nos.) | 2 | ONGC, Sibsagar |
| 102006003-01 | 150.0 | A-336 | 63-10 | 269 | Elect. Motor | 132.0 k.w (customer Scope) | 2 | VA-Tech for ONGC Lingala, Rajahmundry |
| 102006004-01 | 55.0 | A 356-D | 63-10 | 206 | Elect. Motor | 110.0 k.w | 3 | ONGC, Mehsana |
| 102006005-01 | 40.0 | A-344 | 43-7 | 285 | Elect. Motor | 55.0 k.w | 2 | ONGC, Jorhat thru Afcon Infrastructures Ltd |
| 102006006-01 | 60.0 | D 323-ST | 33-5 SL | 245 | Elect. Motor | 30.0 k.w | 1 | ONGC, Rudrasagar thru Indian Oil Tanking |
| 102006007-01 | 50.0 | A 356-D | 63-10 | 221 | Elect. Motor | 75.0 k.w | 3 | ONGC, Ahmedabad |
| 102006007-02 | 50.0 | A 356-D | 63-10 | 218 | Elect. Motor | 90.0 k.w | 2 | ONGC, Ahmedabad |
| 102006007-03 | 170.0 | A-336 | 63-10 | 243 | Elect. Motor | 110.0 k.w | 1 | ONGC, Ahmedabad |
| 102006007-04 | 170.0 | A-536 | 65-10 | 314 | Elect. Motor | 240.0 k.w | 1 | ONGC, Ahmedabad |
| 102006008-01 | 165.0 | A-336 | 63-10 | 230 | Elect. Motor | 90.0 k.w | 2 | CPCL Chennai |
| 102006009-01 | 205.0 | A 1700-PT | A 1700-PT | 150 | Elect. Motor | 1050 HP, (2 Nos.) | | BHEL, Hyderabad |
| 102007001-01 | 60.0 | D 323-ST | 33-5 SL | 245 | Elect. Motor | 30.0 K.W | 1 | ONGC, Rudrasagar thru L&T |
| 102007002-01 | 128.0 | A 850-PT | A 850-PT | 160 | Elect. Motor | 1050 HP | 1 | ONGC, Mehsana |
| 102007003-01 | 100.0 | C 348-FS | 83-20R | 182 | Elect. Motor | 200.0 K.W | 4 | ONGC, Mehsana |
| 102007004-01 | 205.0 | A 1400-PT | A 1400-PT | 150 | Elect. Motor | 1050 HP, (2 Nos.) | 2 | ONGC, Ankleshwar |
| 102007005-01 | 205.0 | A 1400-PT | A 1400-PT | 150 | Elect. Motor | 1050 HP, (2 Nos.) | 3 | ONGC, Sivsagar |
| 102007005-02 | 205.0 | A 1700-PT | A 1700-PT | 150 | Elect. Motor | 1050 HP, (2 Nos.) | 4 | ONGC, Sivsagar |
| 102007006-01 | 162.0 | E 338-FS | 83-20 R | 164 | Elect. Motor | 160.0 KW | 2 | Bina Oman Refinery thru EIL, New Delhi |
| 102008001-01 | 128.0 | A 850-PT | A 850-PT | 160 | Elect. Motor | 1050 HP | 1 | ONGC, Mehsana |
| 102008002-01 | 120.0 | A 334-H | 43-8 | 344 | Elect. Motor | 75.0 KW | 3 | ONGC, Karikal |
| 102008003-01 | 75.0 | A 356-D | 63-10 | 183 | Gas Engine | 115 HP | 3 | OIL, Duliajan |
| 102009001-01 | 29.8 | D-323 | (33-5) | 250 | Elect. Motor | 9.3 kw | 1 | HMEL, Bhathinda Thru EIL |
| 102009001-02 | 68.4 | A-334 | (43-7) | 280 | Elect. Motor | 55.0 kw | 2 | HMEL, Bhathinda Thru EIL |
| 102009001-03 | 77.9 | C 358-FS | (83-20R) | 162 | Elect. Motor | 200.0 kw | 2 | HMEL, Bhathinda Thru EIL |
| 102009001-04 | 20.4 | D-323 | (33-5) | 238 | Elect. Motor | 7.5 kw | 2 | HMEL, Bhathinda Thru EIL |
| 102009002-01 | AS CHARGED BLADDER TYPE DISCHARGE DAMPEN | | | | | | 1 | IOCL, Panipat |
| 102009003-01 | 205.0 | A 1400-PT | A 1400-PT | 150 | Elect. Motor | 2 Nos., 1050 HP | 2 | BHEL, Hyderabad |
| 102009004-01 | 30.0 | A-344 | (43-7) | 287 | Elect. Motor | 55.0 kw | 6 | ONGC, Mehsana |
| 102009004-02 | 55.0 | A 356-D | (63-10) | 208 | Elect. Motor | 110.0 kw | 3 | ONGC, Mehsana |
| 102009005-01 | 59.5 | D-323 | (33-5) | 245 | Elect. Motor | 9.3 kw | 2 | Numaligarh Refinery Thru EIL |
| 102009006-01 | 55.0 | A 356-D | (63-10) | 208 | Elect. Motor | 110.0 kw | 2 | ONGC,Mehsana |

# BPCL PAST SUPPLY REFERENCE LIST FOR MUD PUMPS USED FOR DRILLING SERVICES

| BPC Sale-Order Number | Working Pressure Kg/Sq.Cm | Pump Model | | Pump Speed (RPM) | Driver Type | Driver Power | Quantity of Pumps | Name Of Customer |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| 102009006-02 | 100.0 | C 348-FS | (83-20) | 182 | Elect. Motor | 200.0 kw | 2 | ONGC, Mehsana |
| 102010001-01 | 50.0 | A-334 | (43-7) | 255 | Elect. Motor | 45.0 kw | 2 | ONGC, Mehsana |
| 102010001-02 | 80.0 | A-334 | (43-7) | 337 | Elect. Motor | 75.0 kw | 2 | ONGC, Mehsana |
| 102010001-03 | 50.0 | A 356-D | (63-10) | 220 | Elect. Motor | 90.0 kw | 1 | ONGC, Mehsana |
| 102010002-01 | 80.0 | A 356-D | (63-10) | 256 | Elect. Motor | 110.0 kw | 3 | ONGC, Ankleshwar for Akhol Juni Site Thru Sopan Projects, Pune |
| 102010002-02 | 70.0 | A 356-D | (63-10) | 183 | Elect. Motor | 75.0 kw | 2 | ONGC, Ankleshwar for Kathna Site Thru Sopan Projects, Pune |
| 102010002-03 | 50.0 | A 356-D | (63-10) | 190 | Elect. Motor | 75.0 kw | 2 | ONGC, Ankleshwar for Padra Site Thru Sopan Projects, Pune |
| 102010003-01 | 142.0 | A-336 | 63-10 | 299 | Driver not in BPC scope | | 2 | Oil India Ltd., Duliajan (Bare Shaft Pump) |
| 102010004-01 | 77.9 | A-334 | 43-7 | 256 | Elect. Motor | 55.0 kw | 2 | Brahmaputa Perto Chem Complex thru EIL Kolkata |
| 102010005-01 | 145.3 | A 1000-PT | A 1000-PT | 50 to 150 | Diesel Engine | 1250.0 HP | 2 | ONGC, Ankleshwar |
| 102010006-01 | 35.3 | D-323 | 33-5 | 270 | Elect. Motor | 11.0 kw | 4 | KRIBHCO, Hazira thru PDIL, Noida |
| 102010007-01 | 78.0 | D-323 | 33-5 | 295 | Elect. Motor | 30.0 kw | 2 | ONGC, Hazira thru L&T |
| 102010008-01 | 63.0 | A 356-D | 63-10 | 253 | Elect. Motor | 110.0 kw | 2 | ONGC, Mehsana thru B&R, Kolkata |
| 102010008-02 | 20.0 | A 356-D | 63-10 | 184 | Elect. Motor | 55.0 kw | 3 | ONGC, Mehsana thru B&R, Kolkata |
| 102010009-01 | 195.0 | A 324-H | 43-8 | 350 | 90.0 kw Elect. Motor (Not in BPC scope) | | 1 | GAIL, Pata (Bare Shaft Pump) |
| 102010009-02 | 210.0 | D-323 | 33-5 | 361 | 37.0 kw Elect. Motor (Not in BPC scope) | | 1 | GAIL, Pata (Bare Shaft Pump) |
| 102011001-01 | 195.0 | 336-P | 63-10R | 302 | Elect. Motor | 132.0 kw | 4 | NPCIL, Mumbai (For KAPP 3&4) |
| 102011002-01 | 195.0 | 336-P | 63-10R | 302 | Elect. Motor | 132.0 kw | 4 | NPCIL, Mumbai (For RAPP 7&8) |
| 102011003-01 | 108.1 | D-323 | 33-5 | 256 | Elect. Motor | 15.0 kw | 2 | GSPCL thru EIL |
| 102011003-02 | 108.1 | D-323 | 33-5 | 256 | Elect. Motor | 15.0 kw | 2 | GSPCL thru EIL |
| 102011004-01 | 180.0 | B-538 | 85-25 | 208 | Elect. Motor | 425.0 kw | 3 | Megha Engg. for Assam Renewal project of ONGC |
| 102011004-02 | 180.0 | A-336 | 63-10 | 268 | Elect. Motor | 132.0 kw | 3 | Megha Engg. for Assam Renewal project of ONGC |
| 102011005-01 | 195.0 | A-336 | 63-10 | 240 | Elect. Motor | 100.0 kw | 1 | NPCIL Mumbai for Tarapur |
| 102011006-01 | 170.3 | A 1400-PT | A 1400-PT | 150 | Not in BPC scope | | 1 | ONGC, Rajahmundry (Bare Shaft Pump) |
| 102011007-01 | 133.0 | A 334-H | 43-8 | 340 | Not in BPC scope (110.0 kw) | | 1 | IOCL, Digboi **(Bare Shaft Pump)** |
| 102011008-01 | 50.0 | A356-D | 63-10 | 253 | Elect. Motor | 90.0 kw | 1 | OIL, Duliajan |
| 102012001-01 | 142.0 | A-336 | 63-10 | 299 | Gas Engine | 140 HP Min | 10 | OIL, Duliajan |
| 102012002-01 | 240.0 | B-538 | 85-25 | 196 | Elect. Motor | 460.0 kw | 4 | UEM, Noida for ONGC Assam, Geleki ETP |
| 102012002-02 | 240.0 | E338-FS | 83-20 | 210 | Elect. Motor | 240.0 kw | 3 | UEM, Noida for ONGC Assam, Rudrasagar ETP |
| 102012003-01 | 121.3 | A334-H | 43-8 | 260 | Elect. Motor | 55.0 | 2 | NRL, Numaligarh thru EIL, New Delhi |

## BPCL PAST SUPPLY REFERENCE LIST FOR MUD PUMPS USED FOR DRILLING SERVICES

| BPC Sale-Order Number | Working Pressure Kg/Sq.Cm | Pump Model | | Pump Speed (RPM) | Driver Type | Driver Power | Quantity of Pumps | Name Of Customer |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| 102012004-01 | 240.0 | B-336 | 63-10 | 260 | Elect. Motor | 160.0 | 3 | UEM, Noida for ONGC Assam, Boroholla ETP |
| 102012004-02 | 240.0 | B-336 | 63-10 | 260 | Elect. Motor | 160.0 | 3 | UEM, Noida for ONGC Assam, Koraghat ETP |
| 102012005-01 | 205.0 | A1700-PT | A1700-PT | 50 to 150 | Elect. Motor | 2 No. 1150 HP, AC Motors | 12 | BHEL, Hyderabad For ONGC |
| 102013001-01 | 63.3 | D-323 | 33-5 | 240 | Elect. Motor | 18.5 | 1 | HULL, Kolkata |
| 102014001-01 | 61.0 | D-323 | 33-5 | 336 to 101 | Elect. Motor | 37.0 | 1 | Aquagel Chem. Goa |
| 102014002-01 | 164.0 | A-536 | 65-10 | 257 | Elect. Motor | 180.0 | 1 | IOCL, Panipat |
| 102014003-01 | 160.1 | A-536 | 65-10 | 183 | Elect. Motor | 125.0 | 2 | CPCL Chennai thru Jacobs |
| 102015001-01 | 205.0 | A1700-PT | A1700-PT | 150 | Elect. Motor | 2 Nos. 1050 HP, DC Motor | 2 | ONGC, Vadodara for ONGC, Silchar |
| 102015002-01 | 240.0 | 316-P | 63-10R | 270 | Elect. Motor | 110.0 KW | 5 | ONGC, Nazira **(bare shaft pump)** |
| 102015002-02 | 240.0 | A-316 | 63-10 | 270 | Elect. Motor | 110.0 KW | 4 | ONGC, Nazira **(bare shaft pump)** |
| 102015003-01 | 200.0 | B-538 | 85-25 | 193 | Elect. Motor | 400.0 KW | 1 | SAIL, Bokaro |
| 102015004-01 | 80.0 | A356-D | 63-10 | 269 | Gas Engine | 160.0 HP | 6 | Oil India Ltd., Duliajan |
| 102016001-01 | 67.7 | A-536 | 65-10 | 212 | Elect. Motor | 110.0 KW | 1 | HMEL-GGSR thru Bechtel India |
| 102016002-01 | 121.0 | A-334 | 43-7 | 341 | Elect. Motor | 55 | 2 | ONGC, Cambay **(bare shaft pump)** |
| 102016003-01 | 175.2 | A334-H | 43-8 | 348 | Elect. Motor | 90.0 KW | 2 | IOCL, Mathura |
| 102017001-01 | 205.0 | A1700-PT | A1700-PT | 150 | Elect. Motor | 2 Nos. 1150 HP, AC Motor | 3 | BHEL, Hyderabad for ONGC |
| 102017001-02 | 205.0 | A1700-PT | A1700-PT | 150 | Elect. Motor | 2 Nos. 1050 HP, DC Motor | 2 | BHEL, Hyderabad for ONGC |
| 102018001-01 | 205.0 | A1700-PT | A1700-PT | 150 | Elect. Motor | 2 Nos. 1150 HP, AC Motor | 1 | BHEL, Hyderabad for ONGC |
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# Horizontal Compressors

Bharat Pumps & Compressors Limited

FRAMES :
The frames are Meehanite cast iron, one piece with crosshead guides and with built-in standard distance piece. Besides the standard distance pieces, extra long distance pieces are provided when the prevention of oil carry over is necessary and two-compartment distance pieces when hazardous or poisonous gases are compressed.

CRANK MECHANISM
The crankshaft is in forged steel with counter weights and is supported by two single-piece babbitt bearings. Connecting rods are in pressed steel. Big end bearings are of the split type in steel with babbitt surface. The small end bearings are one piece in steel with leaded bronze surface. The crosshead is usually one piece with babbitt shoes. If required, crossheads with adjustable babbitt shoes can be supplied. Piston rods are in forged steel, hardened and ground in the stuffing box area. A special design of the connection of the piston rod to the crosshead allows the positioning of the piston without its rotation and with exact setting of cylinder clearances.

CYLINDERS
Cylinders are selected according to the pressures, capacities and compression ratios required. Besides the cast iron piston rings used in lubricated cylinders, graphite, PTFE* or micarta seals can be supplied for special services. Valves are of the Nuovo Pignone high efficiency ring type and ensure long periods of continuous running.

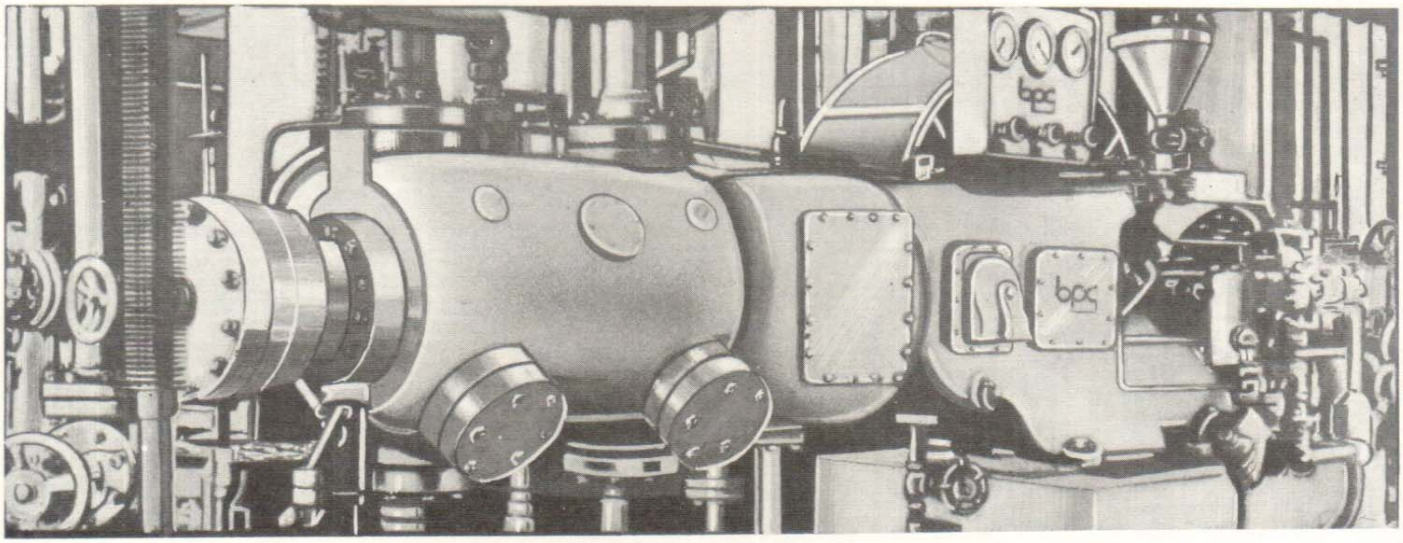
LUBRICATION
Lubrication of the crank mechanism is by means of gear pump directly driven by the compressor shaft. The circuit has a twin oil filter with change-over valve allowing the cleaning or replacement of filtering elements without interrupting the oil flow and therefore the running of the machine.
Lubrication of the compressor cylinders (in the lubricated types) is by means of lubricators driven by the compressor shaft, with visual control for each lubrication point.

CAPACITY CONTROL
Capacity control of these compressors is achieved by using all the external systems employed on reciprocating machines (by-pass, rpm variation) and/or with the following systems.
— step control by means of valve unloaders and/or clearance pockets.
— continuous capacity control by means of variable time clearance pockets, with variable ports and flowbacks on suction valves.

CONTROL PANEL
A control panel is mounted on the machine and includes gauges with their interception cocks for gas and lubricating oil pressure.
Cabinet type control panels can be furnished if specified.

*Polytetra-fluoroethylene resin.

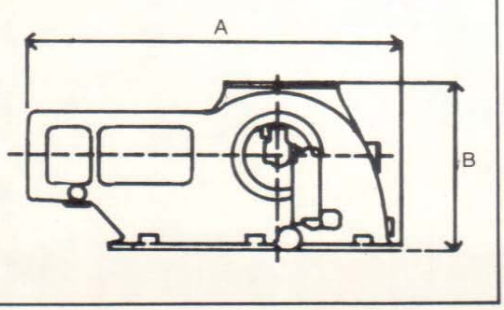
# horizontal compressors

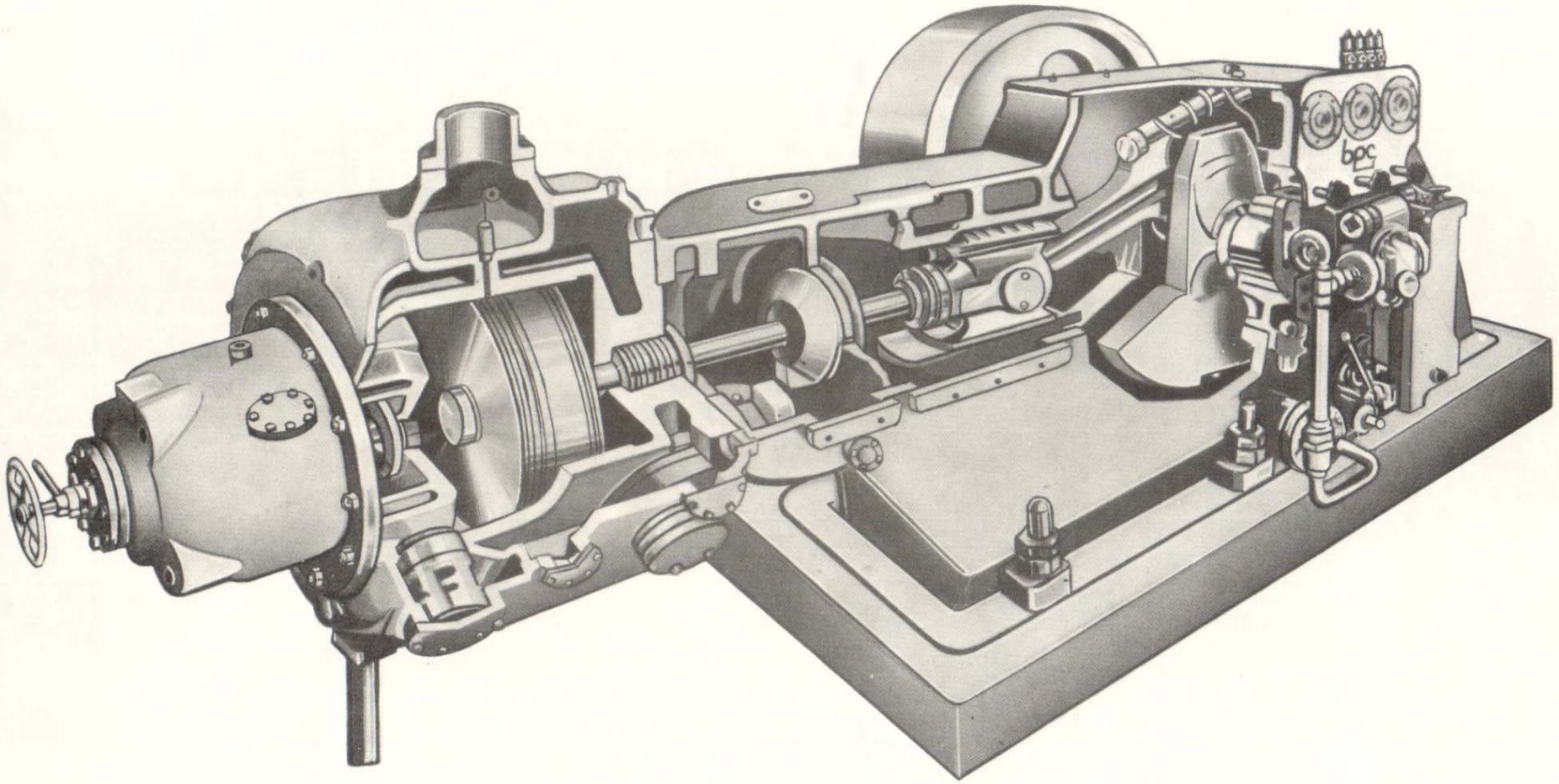


OZ, OA, OC, OD HORIZONTAL COMPRESSORS
These low speed compressors have been specially designed for reliable operation in gas compression in process gas industries and for instrument air. They employ a new series of horizontal type frames and standard cylinders of the series used for balanced opposed cylinder compressors. In this way compressors can be manufactured to meet customers' specific requirements while using completely standardized and well tested parts.

OVERALL DIMENSIONS (IN MM)

| TYPES | A | B |
|---|---|---|
| OZ | 1400 | 635 |
| OA | 1910 | 810 |
| OC | 2190 | 1015 |
| OD | 2600 | 1120 |






CROSS SECTION OF SINGLE CRANK COMPRESSOR