



# HORIZONTAL PUMPS



**WPIL Limited**



# INTRODUCTION

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WPIL Limited, formerly known as Worthington Pump India Ltd., was established about 60 years back and has dedicated itself to the development of complete range of pumps and water handling systems.

Leveraging the hydraulic heritage of the world famous Worthington and Johnston brand and enhancing it with a sophisticated Research and Development Centre, the Company now possesses an enviable product range of Pumps and capability. Its Horizontal Pump range covers the large engineered Horizontal Split Case and Volute Pumps to the smaller End Suction Pumps.

The Pumps find applications in all spheres of Industry, Power, Irrigation and Municipal Sectors from Raw Water applications, Booster Pump Applications, Cooling Water Applications, Municipal Distribution Applications to Lift Irrigation Applications, the product is the market leader in performance.

Based on WPIL's huge manufacturing capability including 3 foundries handling various metallurgies, these pumps can be supplied in all metallurgies from simple cast iron construction to exotic super duplex stainless steels and nickel alloys.

WPIL products are backed by a world class after sales team with trained personnel who can be deputed a short notice.

## The company had following Historical Benchmarks during these long years:



- 1952 JOHNSTON PUMPS INDIA – A JV OF JOHNSTON, US
- 1983 WORTHINGTON PUMP INDIA LTD - JV OF WORTHINGTON
- 1990 FIRST 2 x 500 MW CW PUMP ORDER FOR NTPC FARAKKA
- 2003 FIRST TURNKEY CONTRACT FROM NTPC VINDYACHAL 500MW
- 2009 LARGE SEA WATER HANDLING CIRCULATING WATER PUMPS OF 30000 M<sup>3</sup>/H SUPPLIED



# HORIZONTAL PUMP RANGE

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A broad line of field proven centrifugal pumps for a wide variety of applications is given. However designs as per requirements can also be provided in various materials of construction & performance ranges.

## Split Case Range - Between Bearing



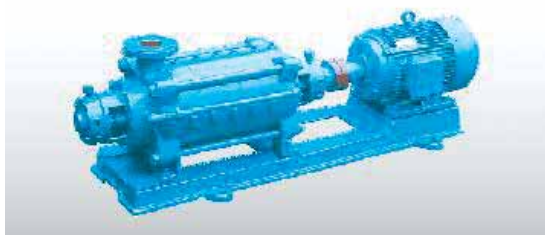
L R type - Axially Split - Double Suction - Standard



L N type - Axially Split - Double Suction - Heavy Duty



U type - Axially Split - Double Suction - 2 Stage



WXH type - Radial Split - Multistage

## End Suction Range



WPE type - End Suction - Back Pullout



DS type - End Suction - Heavy Duty



MN type - End Suction - Solid Handling - Heavy Duty

Note : 1. Designs subject to change.

2. Other sizes and options available as per requirement.

# SPLIT CASE - BETWEEN BEARING

## LR - Axial Split Case

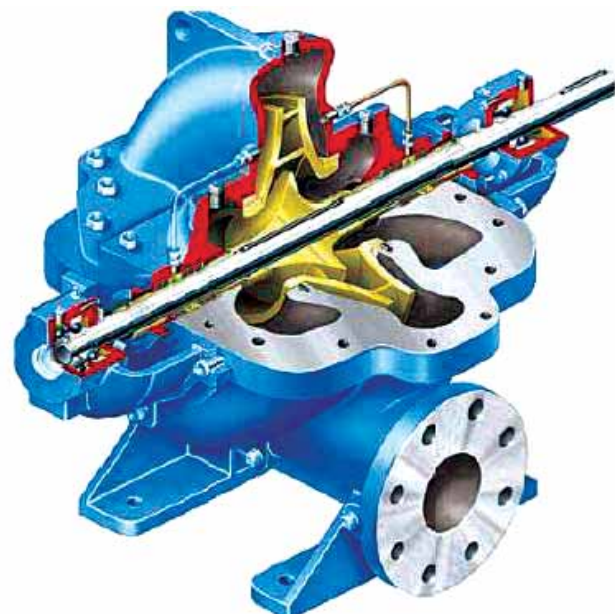
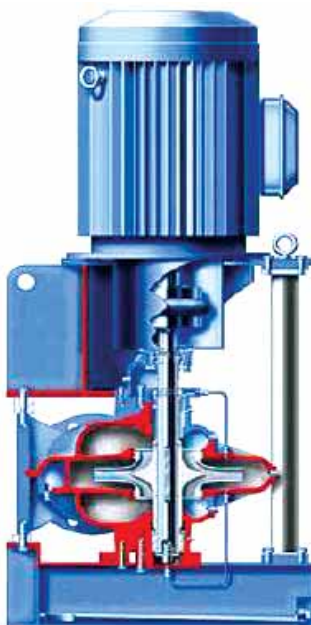
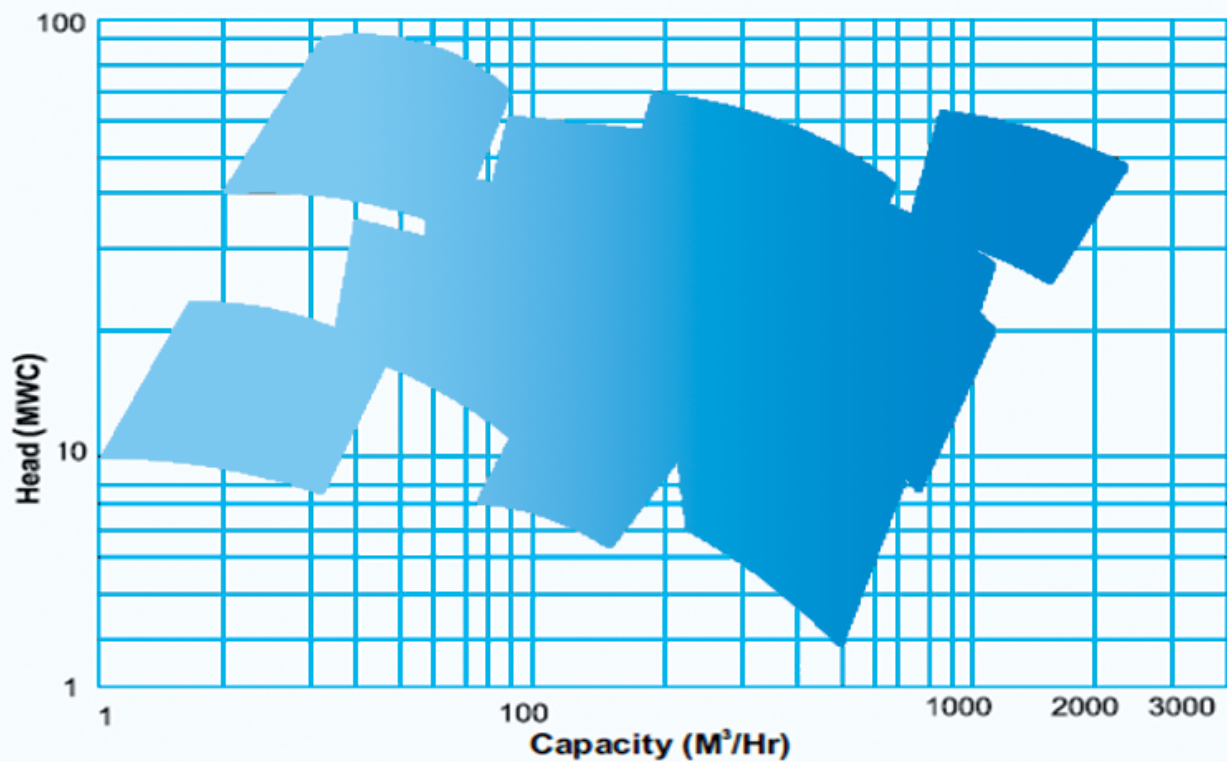
### Features :

- ▶ Axially Split Case Design
- ▶ Single Stage Pump
- ▶ Range from 10M<sup>3</sup>/HR to 2200M<sup>3</sup>/HR
- ▶ Head upto 90 Mtr
- ▶ Double Suction design - Closed type Impeller
- ▶ Both Horizontal & Vertical execution available

### Advantages :

- ▶ Balanced Axial Loading
- ▶ High Efficiency
- ▶ Ease of maintenance

LR Series Coverage Chart 2 & 4 pole 50 Hz



# SPLIT CASE - BETWEEN BEARING

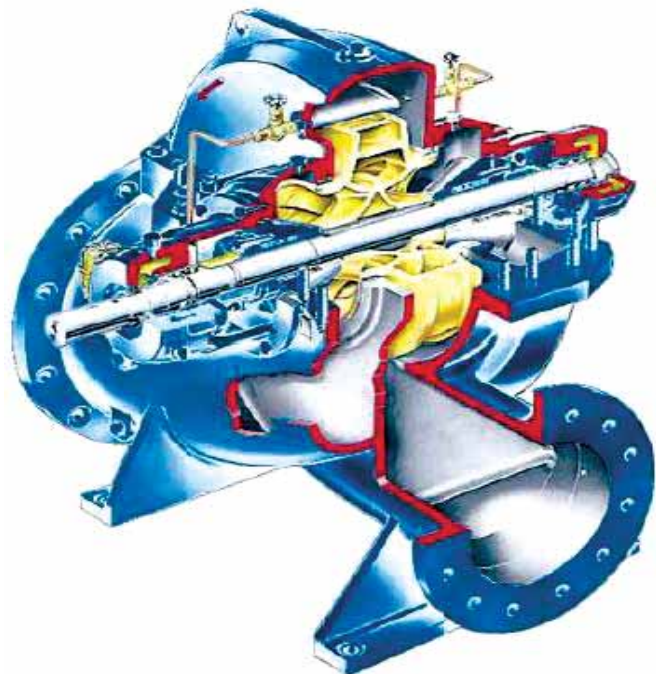
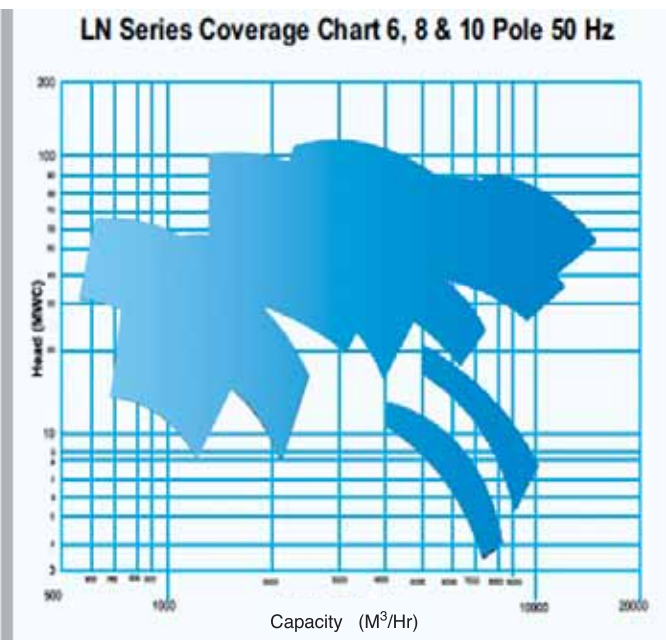
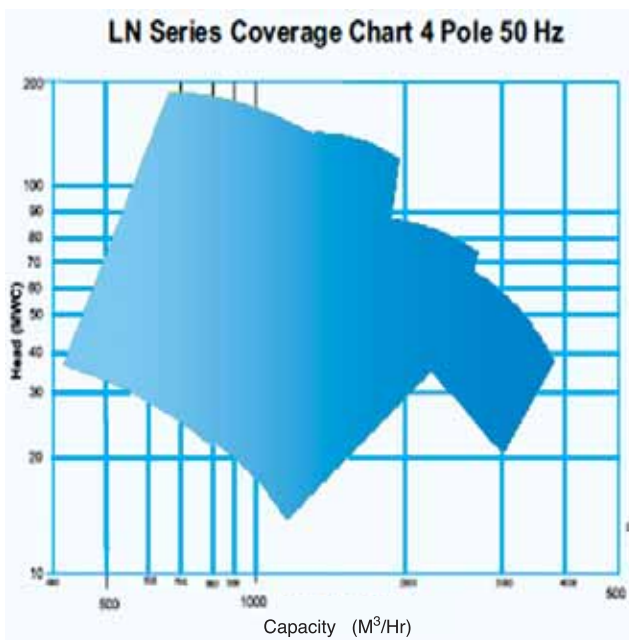
## LN - Axial Split Case - Heavy Duty

### Features :

- ▶ Axially Split Case Design
- ▶ Single Stage Pump
- ▶ Range from 400M<sup>3</sup>/HR to 15000M<sup>3</sup>/HR
- ▶ Head upto 190 Mtr
- ▶ Double Suction Closed type Impeller - Volute Casting design
- ▶ Suction / Discharge branches integrally cast with Casting
- ▶ Both Horizontal & Vertical execution available

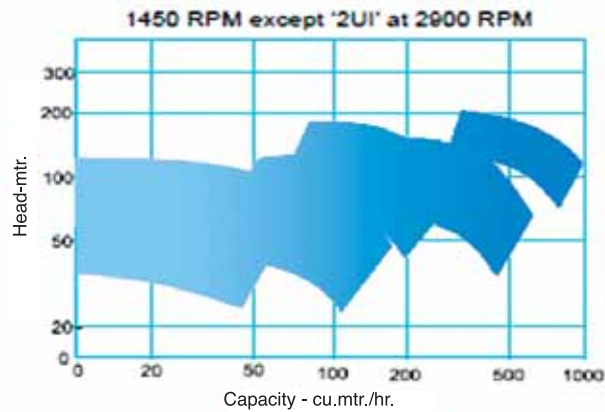
### Advantages :

- ▶ Balanced Axial Loading
- ▶ Can Operate almost at shutt-off capacity without excessive deflection
- ▶ High Efficiency
- ▶ Ease of maintenance
- ▶ Low noise & vibration
- ▶ Low NPSHR



# SPLIT CASE - BETWEEN BEARING

## U - Axial Split Case - 2 Stage



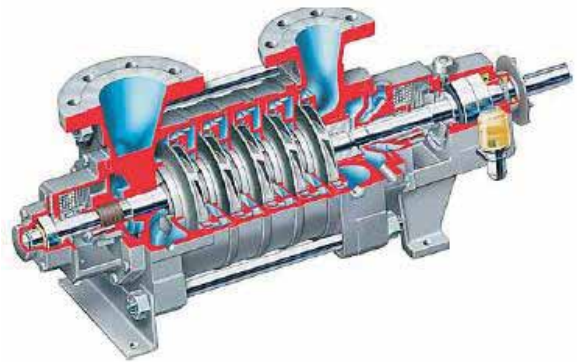
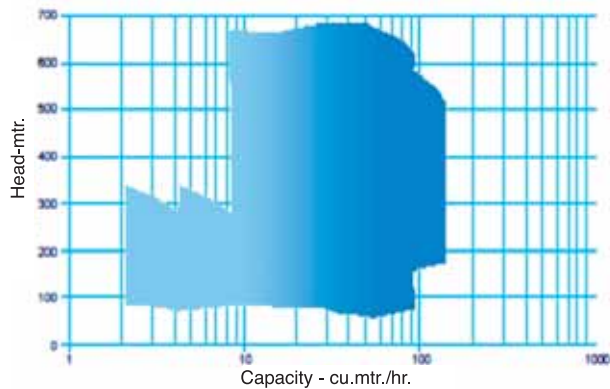
### Features :

- ▶ Axially Split Case Design
- ▶ 2 Stage Pump
- ▶ Range from 10M<sup>3</sup>/HR to 2200M<sup>3</sup>/HR
- ▶ Head upto 200 Mtr
- ▶ Double Suction Closed type Impeller

### Advantages :

- ▶ Balanced Axial Loading
- ▶ High Efficiency
- ▶ Ease of maintenance
- ▶ Low NPSHR

## WXH - Radial Split Case Multi Stage



### Features :

- ▶ Radially Split Case Suction Design
- ▶ Multi Stage Pump
- ▶ Range from 6M<sup>3</sup>/HR to 450M<sup>3</sup>/HR
- ▶ Head upto 650 Mtr

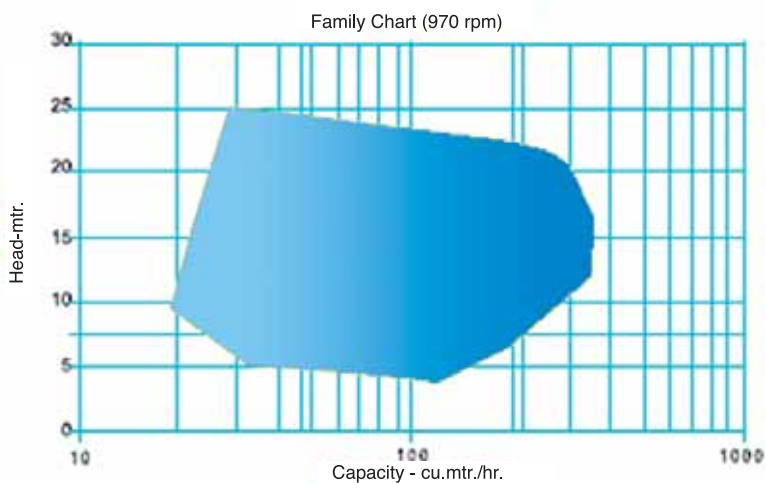
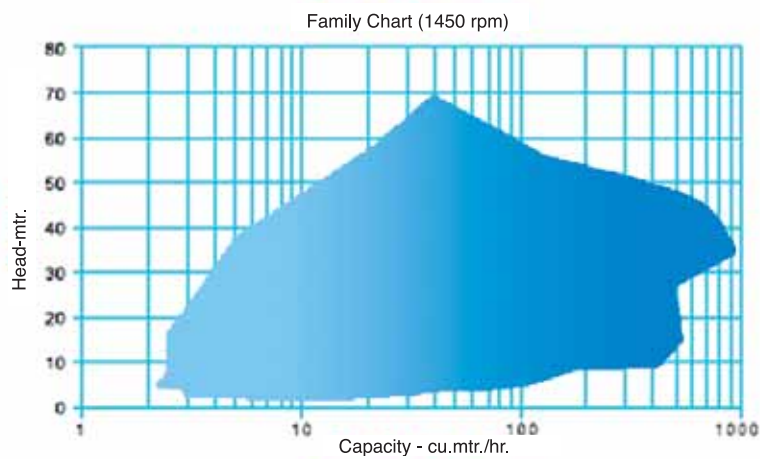
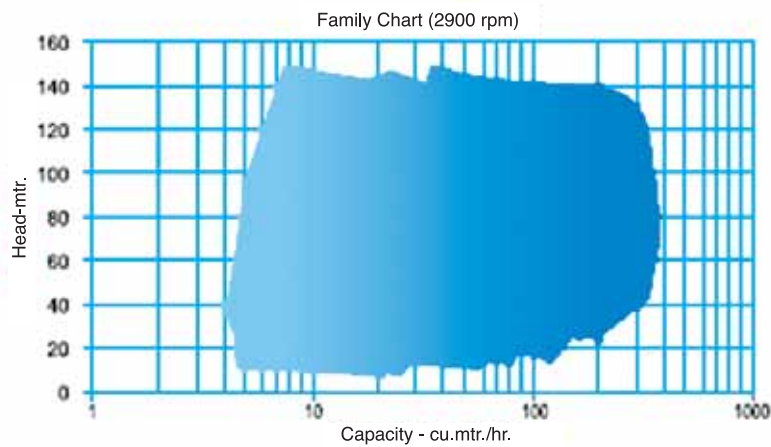
### Advantages :

- ▶ Suitable for water supply and drainage
- ▶ Axial thrust balancing by balancing disc
- ▶ High Efficiency
- ▶ Extra Sliding bearing for longer life
- ▶ Various options available



# END SUCTION

## WPE - End Suction Pump - ISO 2858



### Features :

- ▶ Radial Split Case Design
- ▶ Range upto 900M<sup>3</sup>/HR
- ▶ Head upto 140 Mtr
- ▶ Closed or open type Impeller
- ▶ DN 32 mm to DN 200 mm
- ▶ Casting pressure upto 16 bar

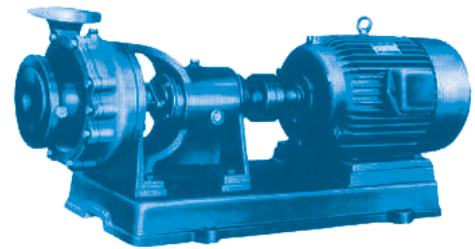
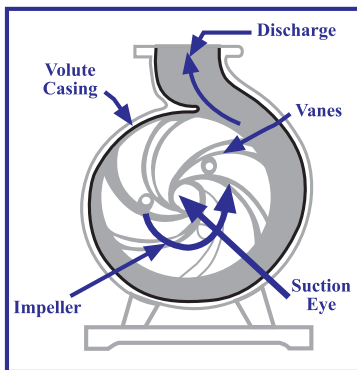
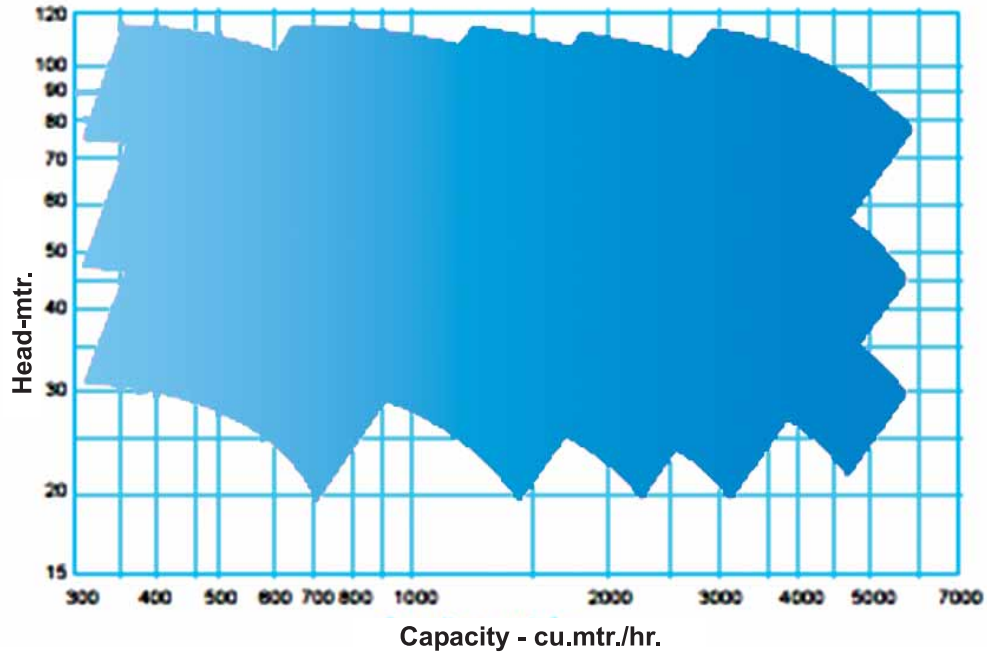
### Advantages :

- ▶ Exceeds ANCI B 73.1 Standards
- ▶ High Efficiency
- ▶ Low noise & vibration
- ▶ Low NPSHR



# END SUCTION

## DS Industrial type - Heavy Duty



### Features :

- ▶ Radial Split Case Design
- ▶ Range from 420M<sup>3</sup>/HR to 5000M<sup>3</sup>/HR
- ▶ Head upto 100 Mtr
- ▶ End Suction Back Pull-Outdesign
- ▶ Single Stage, Single Suction, Double Volute Casting

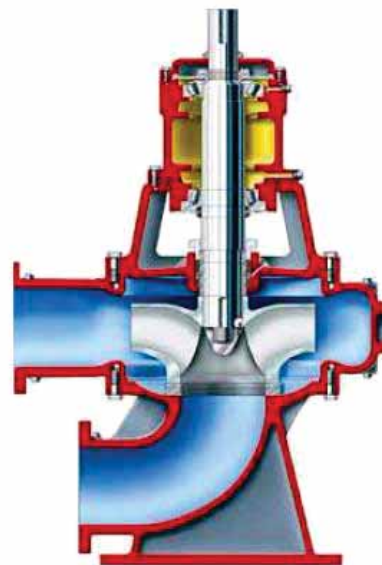
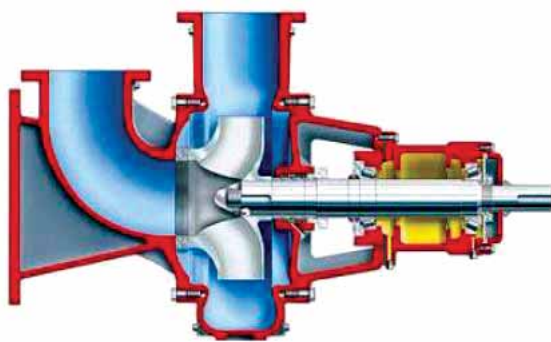
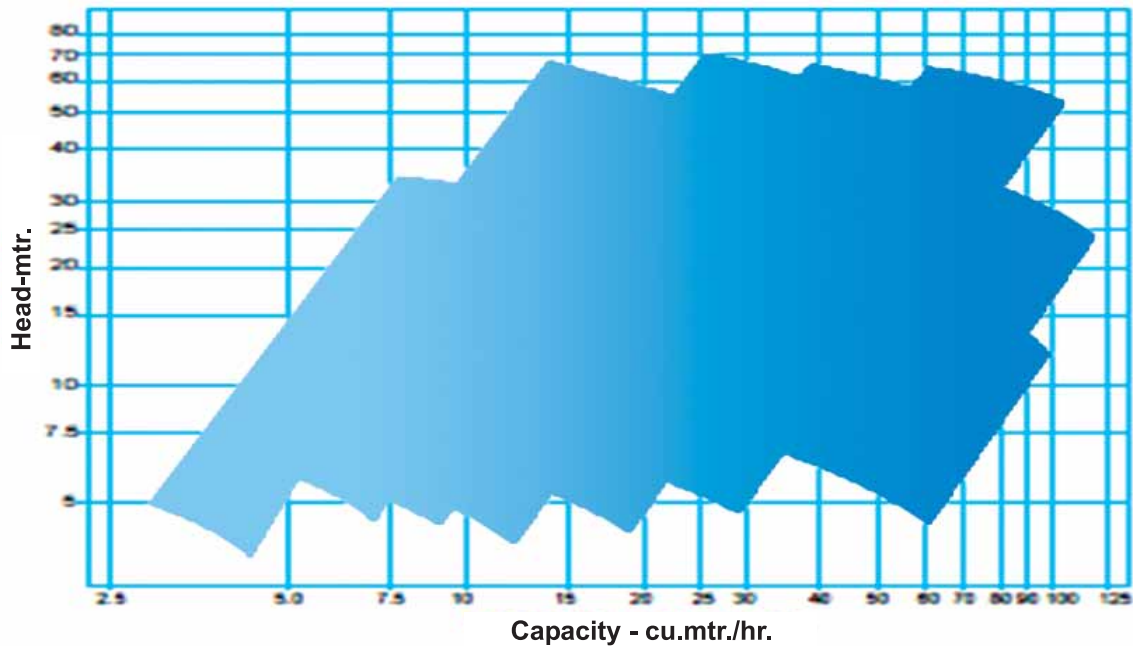
### Advantages :

- ▶ Low NPSH requirement
- ▶ High Efficiency
- ▶ Low noise & vibration
- ▶ Conservative loading of components
- ▶ Low wear & tear



# END SUCTION

## MN - Solid Handling Pumps



### Features :

- ▶ Radial Split End Suction Design
- ▶ Range from 250M<sup>3</sup>/HR to 9400M<sup>3</sup>/HR
- ▶ Head upto 200 Mtr
- ▶ Mixed Flow Type
- ▶ Enclosed non-clog Impeller design
- ▶ Large solid & Stringy Material handling capability
- ▶ Both Horizontal & Vertical execution available, with various nozzle position

### Advantages :

- ▶ Consistent performance over long years
- ▶ High Efficiency
- ▶ Low noise & vibration



# REFERENCES

- ▶ 2 nos. 20 inch discharge LN pumps of 2841 Cu.Mtr/Hr capacity and 445 KW/6 pole motor with SS-CA6NM impeller for river raw water intake in West Bengal, India.
- ▶ 10 inch discharge LN pumps of 1022 Cu.Mtr/Hr capacity and 180 KW/4 pole motor with bronze impeller to Tata Steel, India
- ▶ 16 nos. 8,10 inch discharge LN & LR pumps upto 650 Cu.Mtr/Hr capacity and 1325 KW/4 pole motor with bronze & SS-CF8M impeller to Hindalco, Hirakund, India.
- ▶ 3 nos. 12 inch discharge LN pumps of 600 Cu.Mtr/Hr capacity and 132 Kw/4 pole motor with SS-CA15 impeller to Ispat Alloys Ltd., India.
- ▶ 16 nos. 4 inch discharge U Pumps & 6 inch discharge LR pumps upto 200 Cu.Mtr/Hr capacity, 75 Mtr. Head and 45 Kw/4 pole motor with bronze impeller to Beijing Sino Steel, China.
- ▶ 7 nos. 10 inch discharge DS pumps upto 840 Cu.Mtr/Hr capacity and 160 Kw/4 pole motor with SS-CF8M impeller to GHCL Ltd., India.
- ▶ Several 12 & 14 inch discharge LN pumps upto 1169 Cu.Mtr/Hr capacity and 150 Kw/6 pole motor to APSIDC, India.
- ▶ 6 nos. 12 inch discharge LR pumps upto 2000 Cu.Mtr/Hr capacity and 350 Kw/6 pole motor with SS-CF8M impeller to ITC Ltd., India.
- ▶ 2 nos. 4 inch discharge U pumps upto 200 Cu.Mtr/Hr capacity, 80 Mtr and 75 Kw/4 pole motor with SS-CA15 impeller to Malaysia.
- ▶ Several 12 inch discharge LN pumps upto 1584 Cu.Mtr/Hr capacity and 175 Kw/4 pole motor with bronze impellers to KWA, India.
- ▶ 6 nos. 24 inch discharge LN pumps upto 6115 Cu.Mtr/Hr capacity and 615 Kw/8 pole motor with SS-CF8M impellers to U.P Irrigation, India.
- ▶ 5 nos. 12 inch discharge LR pumps upto 3420 Cu.Mtr/Hr capacity and 225 Kw/10 pole motor with bronze impellers to Delhi Jal Board. India.
- ▶ 2 nos. 14 inch discharge MN pumps of 1020 Cu.Mtr/Hr capacity with bronze impellers to IFC, Srinagar, India
- ▶ 19 nos. 14 inch discharge MNV, LR & LN pumps upto 1680 Cu.Mtr/Hr capacity and 355 Kw/6 pole motor with bronze impellers for Sokoto State Water Supply in Nigeria.
- ▶ 20 inch discharge LN pump upto 3675 Cu.Mtr/Hr capacity and 375 Kw/6 pole motor with SS-CF8 impeller to CPCL, India
- ▶ Several LN pumps upto 1720 Cu.Mtr/Hr capacity driven by 715 Kw/4 pole motor to Osaka Steel in Nigeria.
- ▶ Several LR pumps upto 100 Cu.Mtr/Hr capacity to Hidromec in Colombia.
- ▶ 61 nos. LN pumps upto 2000 Cu.Mtr/Hr capacity and 220 Kw/4 pole motor with full SS-CF8M moc to APCL - Aravali STPP thru BHEL, India.
- ▶ 10 sets (5 each of 2000 M<sup>3</sup>/HR & 3000 M<sup>3</sup>/HR capacity) Horizontal Split Case Pumps to TCI Sanmar - Egypt.
- ▶ Horizontal Split Case Pumps (4000 M<sup>3</sup>/HR & 200 M<sup>3</sup>/HR capacity) to Chemanol - Jubail, Saudi Arabia.



# FACILITY



- ▶ One dedicated factory at Ghaziabad (near Delhi) having 54,000 Sq.Mtr.Area.
- ▶ Committed in-house grey iron and non-ferrous foundry  
Two Induction Furnaces of Crucible sizes 2MT and 3MT capacity under installation. Foundries in 3 locations in India capable for producing range of ferrous, non-ferrous and other alloy steel castings.
- ▶ Three Specific Test facilities to test pumps upto 10,000 M<sup>3</sup>/Hr capacity & 1 MW, LT and HT power and 230 KW VFD at Ghaziabad plant. Test facility to test pumps upto 40,000 M<sup>3</sup>/Hr capacity & 4 MW power at Kolkata plant.
- ▶ Fully automatic machining centres for larg casings/impellers & dynamic balancing setups for rotating assemblies.
- ▶ Specialised fabrication areas for steel welding.
  - ▶ WPIL Research & Development wing, recognised by Ministry of Science And Technology, Govt. of India, with in-house design and development facilities.





## WPIL SERVED



**WPIL Limited**  
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- ▶ BANGKOK, THAILAND