RNE PUMPS

RYALSAN NORTH ENG

COMPANY PROFILE

RYALSAN NORTH ENGINEERING

MINING

PLANT

CHEMICAL

SLURRY

ESTABLISHED IN 1977



RNE PUMPS

RYALSAN NORTH ENG

RYALSAN NORTH ENGINEERING

A speciaist company in the design, manufacture, service & repair of vertical spindle slurry, chemical & dirty water sump pumps and steel frame electrical motors.

ESTABLISHED 1977

RNE Pumps has more than 40 years of experience in the pumping & mining industry, We supply pumping solutions to South Africa, Africa, and around the world.

Head Office and Factory based in Johannesburg, RNE Pumps distributes and services all major international mining players.

Originally designed for use in deep level underground mining. However, evolved to suit many other applications including Pulp & Paper, Automotive, Food & Beverage, Chemical Plants, Refineries.



17 & 19 IMVUBU ROAD
Sebenza,
Johannesburg, 1609

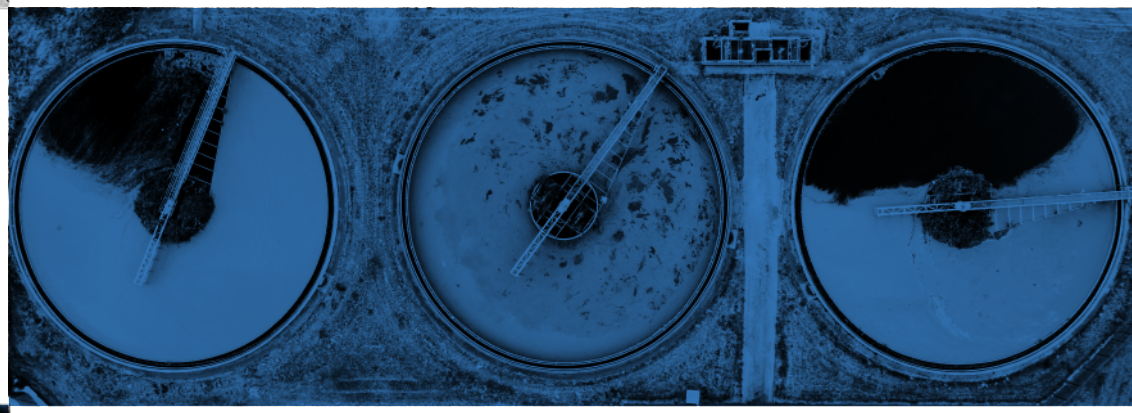
MON - THURS : 7:30 - 16:30
FRI : 07:30 - 13:30
Head Office

0861 RNE PUMPS
+27 (0)11 452 3528
rne@rnepumps.com



MINING

- Underground Dewatering and Slurry Pumping
- Low Cost of Ownership Operation
- Runs Wet or Dry, 24/7



PLANTS

- Various MOC Wet Ends for Acidic Applications
- Direct Driven Motor Reduces Space Requirements
- Built-In Agitator Prevents Blockages



CHEMICAL

- Specialist Stainless Steel MOC
- Various Specialist Series Configurations
- Deep Sump Applications

SLURRY

- Slurries with SG up to 1.5 Pumped Easily
- Constant Agitation Prevents Solids Settling



CUSTOMERS - SOUTH AFRICA

African Rainbow Minerals	Gold	South Africa
AngloGold Ashanti Limited	Gold	South Africa
Barberton Mines	Gold	South Africa
Blyvooruitzicht Gold Mine	Gold	South Africa
Bosveld Mines	Gold	South Africa
Central Rand Gold	Gold	South Africa
Durban Roodepoort Deep	Gold	South Africa
ERPM	Gold	South Africa
Evander Gold Mine	Gold	South Africa
Galaxy Gold Reefs	Gold	South Africa
Gold One	Gold	South Africa
Harmony Gold	Gold	South Africa
Helam Mine	Gold	South Africa
Kwena Mining	Gold	South Africa
Nigel Gold Mining Co	Gold	South Africa
South Deep Gold Mine	Gold	South Africa
Sibanye Stillwater	Gold	South Africa
Tau Lekoa Gold	Gold	South Africa
Anglo Platinum	Platinum	South Africa
Bafokeng Rasimone	Platinum	South Africa
Bokoni Platinum	Platinum	South Africa
Bakubung Minerals	Platinum	South Africa
Booysendal Platinum	Platinum	South Africa
Eastplats - Barplats	Platinum	South Africa
Eland Platinum	Platinum	South Africa
Everest Platinum Mine	Platinum	South Africa
Impala Platinum	Platinum	South Africa
Impala Bafokeng	Platinum	South Africa
Marula Platinum	Platinum	South Africa
Messina Platinum Mines	Platinum	South Africa
Northam Platinum	Platinum	South Africa
Nkomati Mine	Platinum	South Africa
Modikwa Platinum	Platinum	South Africa
Rustenburg Platinum Mines	Platinum	South Africa
Sibanye Platinum	Platinum	South Africa
Two Rivers Platinum	Platinum	South Africa
Twickenham Platinum	Platinum	South Africa
Rand Uranium	Uranium	South Africa
Shiva Uranium	Uranium	South Africa

Afgem	Diamonds	South Africa
Cullinan Diamond Mine	Diamonds	South Africa
De Beers	Diamonds	South Africa
Dodeca Diamante	Diamonds	South Africa
Gothoma Diggings	Diamonds	South Africa
Helam Mining	Diamonds	South Africa
Sedibeng Diamond Mine JV	Diamonds	South Africa
Koffiefontein Diamond Mine	Diamonds	South Africa
Venetia Diamond Mine	Diamonds	South Africa
Aveng-Grinaker LTA Mining	Construction	South Africa
Bombela Consortium	Construction	South Africa
D R A Projects	Construction	South Africa
Green Square Mining	Construction	South Africa
Murray & Roberts Cementation	Construction	South Africa
Senet	Construction	South Africa
Shaft Sinkers	Construction	South Africa
UMS	Construction	South Africa
Worley	Construction	South Africa
Dilokong Chrome	Chrome	South Africa
Glencore Xstrata	Chrome	South Africa
Hernic Ferrochrome	Chrome	South Africa
Samancor	Chrome	South Africa
African Explosive Limited AEL	Chemical	South Africa
Exxaro Zincor	Chemical	South Africa
Zinchem	Chemical	South Africa
Forzando Coal Mine	Coal	South Africa
Grootegeluk Coal Mine	Coal	South Africa
Tumelo Coal	Coal	South Africa
Xstrata SA	Coal	South Africa
Kalagadi Manganese	Manganese	South Africa
Idwala Lime	Lime	South Africa
Palaborwa Mining Co	Rare Earth	South Africa

CUSTOMERS - INTERNATIONAL

BCL	Refinery	Botswana
Gem Diamonds	Diamonds	Botswana
Debswana Diamond Company	Diamonds	Botswana
Katanga Mining	Copper	DRC
Kinsenda Mining	Copper	DRC
Mutanda Mining SPRL	Copper	DRC
Ivanplats - Kipushi Corp.	Copper	DRC
Kamoa Copper Company	Copper	DRC
AngloGold Ashanti Obuasi Mine	Gold	Ghana
Newmont Ahafo Mine	Gold	Ghana
Chirano Gold Mine	Gold	Ghana
Resolute Mining Syama Mine	Gold	Mali
Segala Mining Co	Gold	Mali
Kenmare Moma	Sand	Mozambique
Andrada - Uis Tin Mine	Tin	Namibia
Swakop Uranium	Uranium	Namibia
Acacia Mining	Gold	Tanzania
Shanta Mining Co	Gold	Tanzania
Lumbambe	Copper	Zambia
Mopani	Copper	Zambia
First Quantum	Copper	Zambia
KCM	Copper	Zambia
NFCA Chambishi Mine	Copper	Zambia
Zimbabwe Platinum	Platinum	Zimbabwe
Unki	Platinum	Zimbabwe
Pickstone Mine	Gold	Zimbabwe
Farvic Mine	Gold	Zimbabwe
Blanket Mine	Gold	Zimbabwe

Alamos Gold	Gold	Canada
Lakeshore Gold	Gold	Canada
Newmont/Goldcorp	Gold	Canada
Mcewen	Gold	Canada
Kirkland Lake Gold	Gold	Canada
Centerra Gold	Gold	Canada
Gowest	Gold	Canada
Wesdome	Gold	Canada
Atlantic Gold	Gold	Canada
Lafarge	Cement	Canada
Tembec/Rayonier	Pulp/Paper	Canada
Vale	Nickel/Copper	Canada
Glencore	Nickel/Copper	Canada
Rampura Agucha Mine	Zinc	India
Nusa Halmahera Minerals	Gold	Indonesia
Flex Company LLP	Distribution	Kazakhstan
OK Tedi Mine (Gold)	Gold	Papua New Guinea
PASAR	Smelter	Philippines
Saudi Arabian Mining Co	Gold	Saudi Arabia
Maaden	Gold	Saudi Arabia
Thai Kali Co. Ltd	Potash	Thailand
Nevada Gold Mine	Gold	USA

PRODUCTION WORKSHOP

With a multitude of various center lathes and vertical borers, plus a bank of the latest technology, programmable HAAS machines, RNE can ensure that orders are expedited on time and to specification.

Our operators receive extensive and refresher training, and quality inspections are performed on every batch.

Methodology and Quality Assurance are of the utmost importance, as can be attested by our ISO 9001:2015 certification.





ASSEMBLY AND STORES

Our professional Assembly process ensures that only the best quality RNE Pump is Dispatched to our clients.

We maintain a fully-stocked Parts Warehouse, and are ready to assist end users with parts to conduct any repair work.

With both a wet test bay, and dry test bays, all pumps are tested thoroughly, to ensure the perfect pump is delivered to our clients.

ACCREDITATION

INTERNATIONAL QUALITY CONTROL

RNE pumps are locally manufactured in South Africa to stringent international quality controls.
The Company is extremely proud of achieving accreditation in the following standards:
DIN EN ISO 9001 : 2015 (Quality Control)
ISO 14001 : 2015 (Environmental)
ISO 45001 : 2018 (Health & Safety)

TÜVRheinland®
CERTIFIED

Management System
ISO 9001:2015
ISO 14001:2015
ISO 45001:2018

www.tuv.com
ID 9105020425

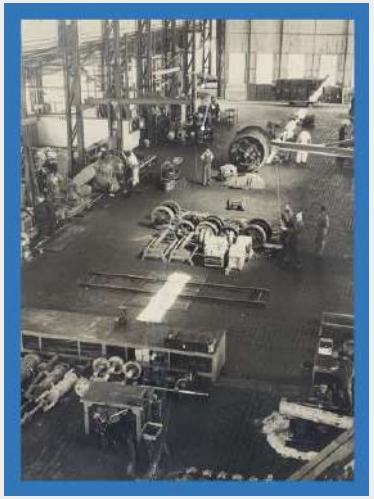


SERVICE & SUPPORT

- Road Transport Supplied to all RSA and SADC Regions
- Air and Sea freight Globally
- Agents and distributors in most active mining areas
- Technicians on stand-by for emergency breakdowns
- Onsite Training for Installations and Maintenance
- Training Guides
- Full repair and reconditioning facilities
- Service exchange units in stock
- Large components stock level held on site

HISTORY

An idea for RNE Pump developed on the Zambian copper belt.



1960

1970



Starting out in a home garage, producing and marketing the first RNE Pumps.

First factory in Plantation road in Eastleigh Edenvale, training RNE's first few employees.



1980

1990



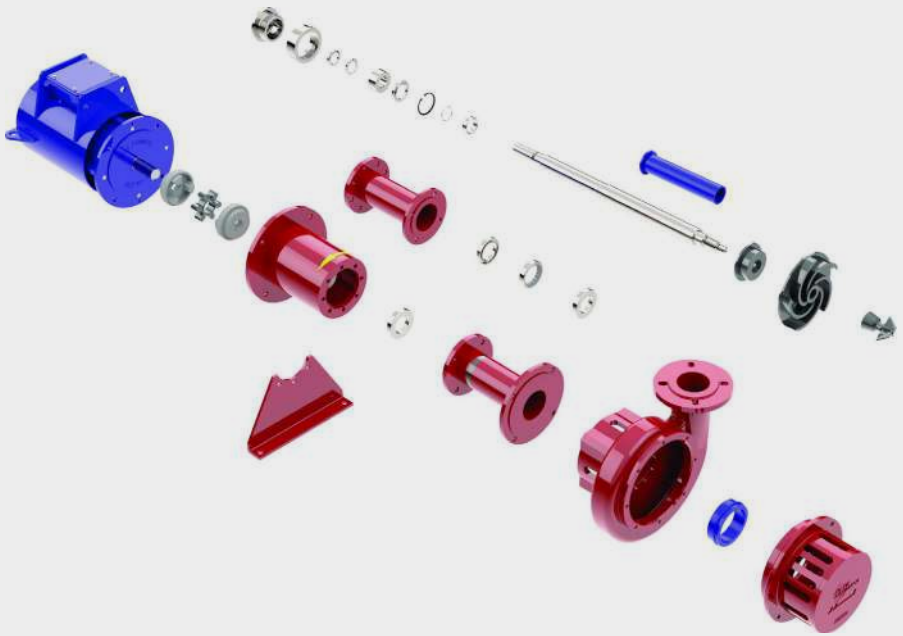
New factory in Imvubu road, Sebenza, Edenvale and the increasing RNE work force.

PUMPS

RNE has a wide range of vertical spindle products to tailor make your perfect pumping solution.

- 10 Series of Pump Frames
- 14 Performance Variations
- 4 Types of Materials for applications with abrasion/corrosion/both
- Sump Depth: 300mm to 2000mm – extended with a tail pipe
- Discharge Diameter: 50mm to 200mm
- Impeller Diameter: 140mm to 380mm
- Spares are interchangeable between Frame Sizes
- Specialized RNE manufactured IEC Steel Frame Electric Motors
- Free standing Bracket Mounted or Sole plate / Base Plate
- Direct Drive or Vee belt drive
- Compatible with metric or Imperial motors and discharge flanges

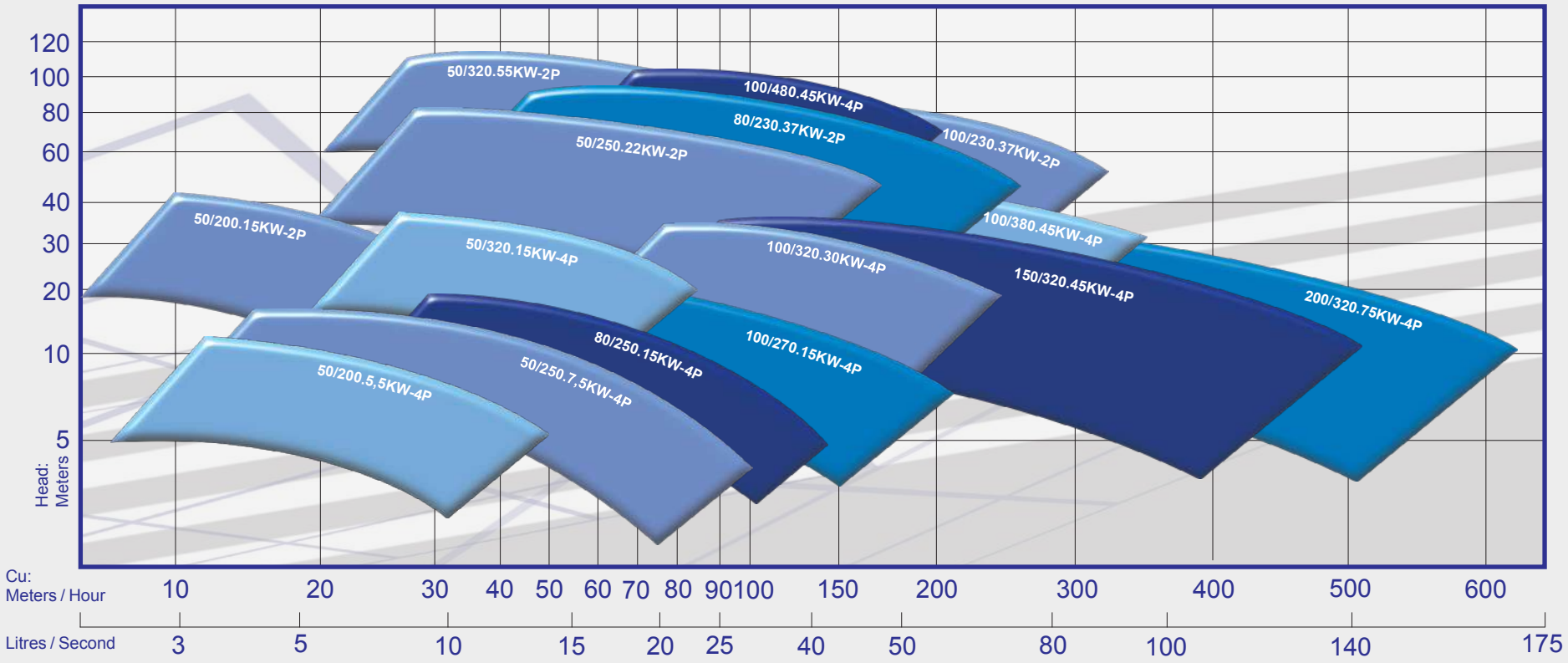




CONSTRUCTION

- Will run wet or dry indefinitely
- Extremely easy to assemble/disassemble for Maintenance
- No shims or spacers required for impeller adjustment
- No measuring equipment needed
- No glands or expensive mechanical seals
- Bearings are sealed for life – no greasing necessary
- Bearing cartridge available for quick turnaround time
- Specialized tools and benches for ease of repair

PERFORMANCE CURVES



PUMP SELECTION

SERIES 3300

Ideal for Restrictive Height and Spaces and Shallow Sumps

Short Shaft Length: Less strain on Bearings
Discharge Flange Size: 50, 80 & 100mm
Sump Depth: 300mm
Motor Size: 7.5kw, 15kw, 22kw, 37kw
Motor Speed: 1450rpm or 2900rpm



SERIES 3900

Ideal for Deeper Sump Application

Long Shaft: Less chance of Bearings submergence
Sump Depth: 1000mm
Discharge Flange Size: 50, 80 & 100mm
Motor Size: 7.5kw, 15kw
Motor Speed: 1450rpm



SERIES 3500

Ideal for Restrictive Height and Spaces but Standard Sump Depth

Short Shaft Length: less strain on Bearings
Sump Depth: 500mm
Discharge Flange Size: 50, 80 & 100mm
Motor Size: 7.5kw, 15kw, 22kw, 37kw
Motor Speed: 1450rpm or 2900rpm



SERIES 5900

Ideal for Robust & Deeper Sump Application

Long Shaft: less chance of Bearings submergence, & Toughened Frame
Sump Depth: 1000mm
Discharge Flange Size: 50, 80 & 100mm
Motor Size: 7.5kw, 15kw, 22kw, 37kw
Motor Speed: 1450rpm or 2900rpm



SERIES 5500

The Original RNE Pump!

Tried and tested over 40 years
Sump Depth: 500mm
Discharge Flange Size: 50, 80 & 100mm
Motor Size: 7.5kw, 15kw, 22kw, 37kw
Motor Speed: 1450rpm or 2900rpm



PUMP SELECTION

SERIES 7700

Ideal for High Volume Application

Flow of up to 160 l/s
Sump Depth: 700mm
Discharge Flange Size: 100 & 150mm
Motor Size: 37kw, 45kw
Motor Speed: 1450rpm



SERIES 7900

Ideal for High Volume & Deeper Sump Application

Long Shaft for less chance of Bearings submergence, & 160 l/s flow
Sump Depth: 1000mm
Discharge Flange Size: 100 & 150mm
Motor Size: 37kw, 45kw
Motor Speed: 1450rpm



SERIES 8900

Ideal for High Head & Deeper Sump Application

Longer Shaft for less chance of Bearings submergence and max 100mm head
Sump Depth: 1000mm
Discharge Flange Size: 50 & 100mm
Motor Size: 75kw
Motor Speed: 2900rpm



SERIES 9900

Ideal for extreme Volume & Deeper Sump Application

Longer Shaft for less chance of Bearings submergence, & max 200 l/s flow
Sump Depth: 1000mm
Discharge Flange Size: 200mm
Motor Size: 75kw
Motor Speed: 1450rpm



SERIES 2000

Ideal for extreme Sump Depth

Longer Shaft for less chance of Bearings submergence
Sump Depth: 2000mm
Discharge Flange Size: 100, 150mm
Motor Size: 30kw, 45kw
Motor Speed: 1450rpm



SPECIALIZED PUMPS

UNSLOTTED SUCTION WITH TAIL PIPE

Deep sump application

Floating raft for Dam application



PERMAFROST PUMPS

Extreme Cold applications

-40 deg °c (Canadian Arctic)



HT PUMPS

Extreme warm applications

80 deg °c (Indonesia Deep level)



BOWL PUMPS

Specialized plant Application

Oil sand, Coal & Fly ash

Effluent, Tailings Transfer



MATERIALS

WET END

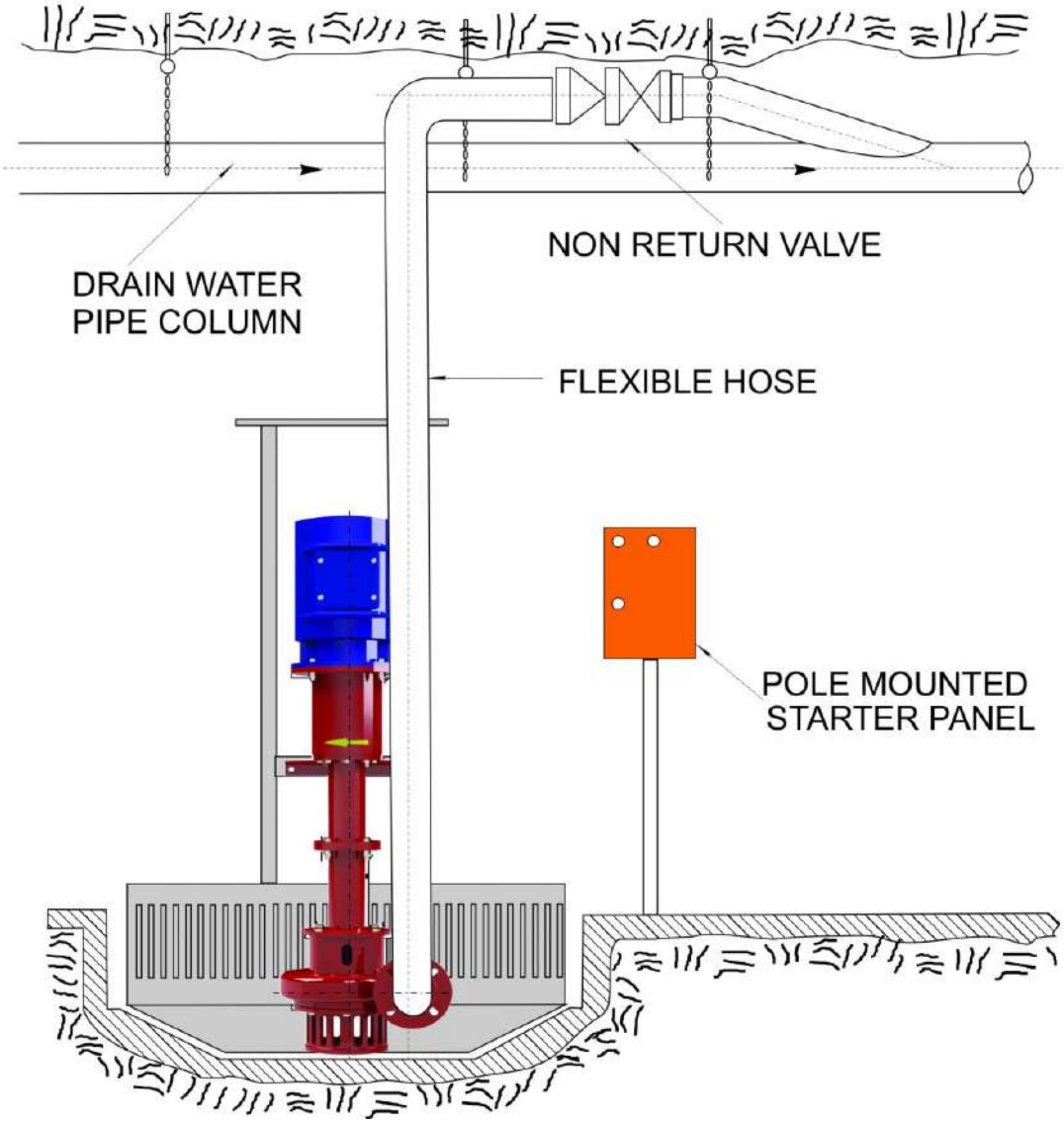
MS	High Chrome Iron 600+ Brunel
MA	High Chrome & Thermal Ceramic Coating
SS	Stainless Steel Castings
JN	Stainless Steel & Thermal Ceramic Coating

APPLICATION

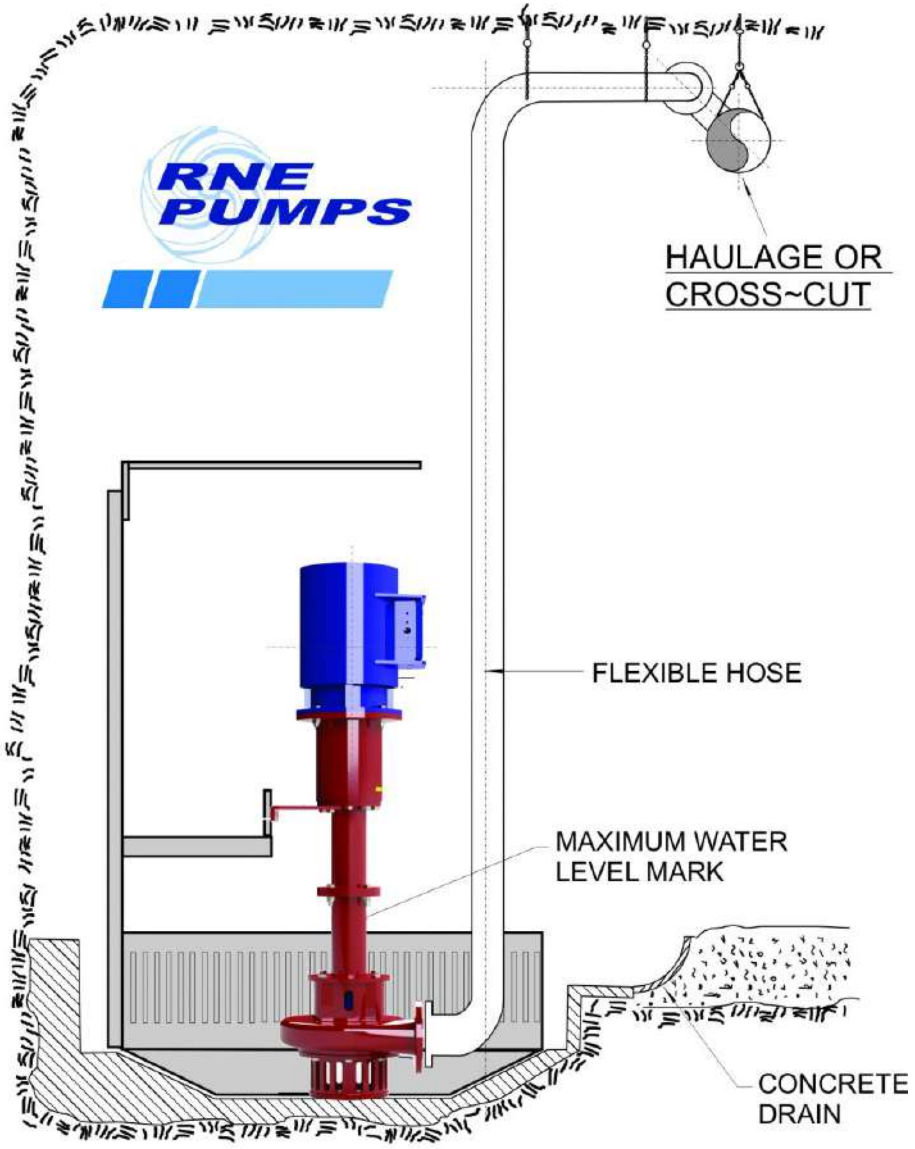
MS	Abrasion No Corrosion
MA	Abrasion Mild Corrosion
SS	No Abrasion Extreme Corrosion
JN	Abrasion Extreme Corrosion



MS **MA** **SS** **JN**



Front view



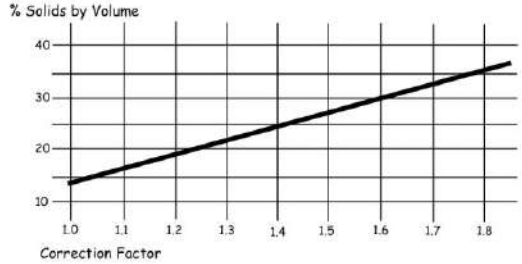
Side view

RNE PUMPS

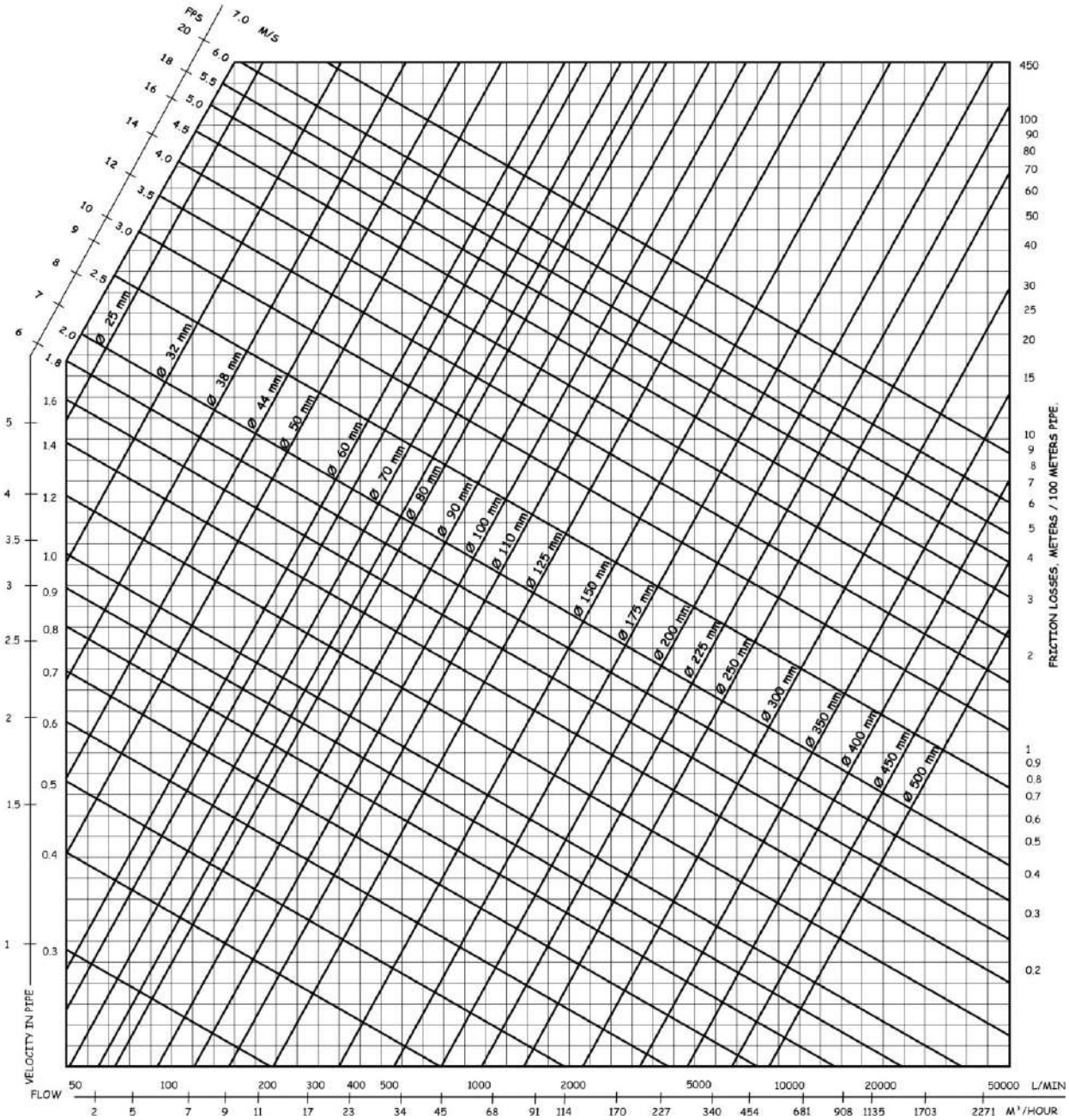
Velocities And Friction Losses for Clear Water In Smooth Steel Pipes

Friction Losses are based on Williams and Hazen's formuler with C=140.

Pumping of Slurries



When calculating the pipe friction losses for a slurry (suspension of solid particles in water) it is advisable to allow for certain increase when compared with the losses for clean water. Up to concentrations of around 15 percent by volume one may assume that the suspension will behave as water. For higher concentrations friction losses should be corrected by a factor taken from the diagram above.



APPLICATIONS: UNDERGROUND MINING

HAULAGE – DIRTY WATER – SLURRY - BACKFILL





APPLICATIONS: PLANT

SPILLAGE SUMPS – CHEMICAL TANKS – CRUSHER PLANT - CONCENTRATOR





APPLICATIONS: DAMS / RAFTS

SETTLING DAMS – UNDERGROUND DAMS – WASTE WATER TREATMENT





MAINTENANCE

Bearing Cartridge Assembly

Available for all size pumps
Enables pump to be overhauled and pumping again in under an hour
All pump parts are Spigot aligned
Impeller is adjusted from the drive end
No shims or spacers are required.





MAINTENANCE

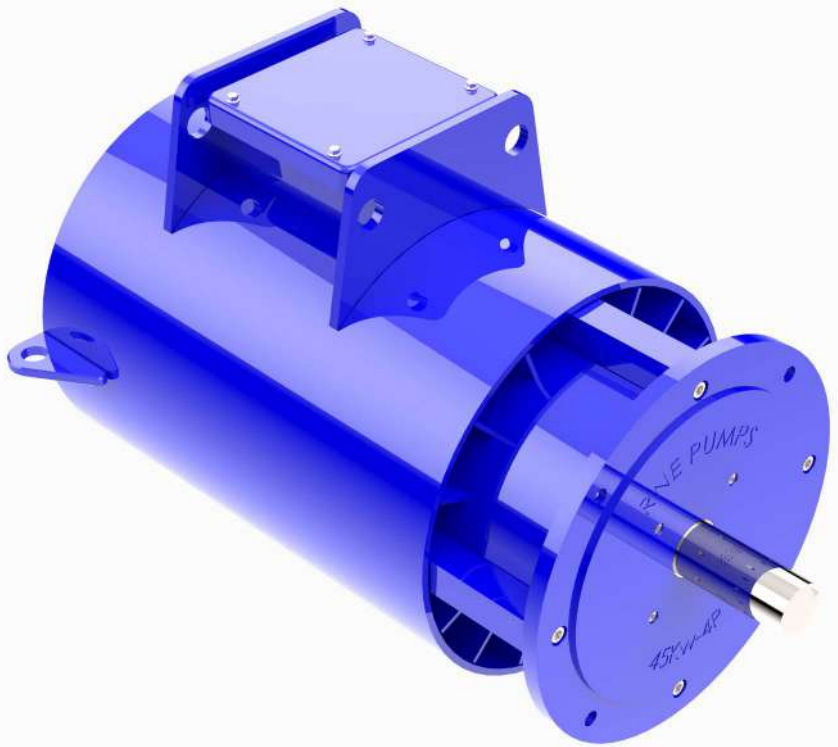
Pump Assembly Bench and Tools

Benches available for all size pumps, complete with specialized tools
Makes stripping and assembly easy and efficient

RNE ALL STEEL FRAME MOTORS

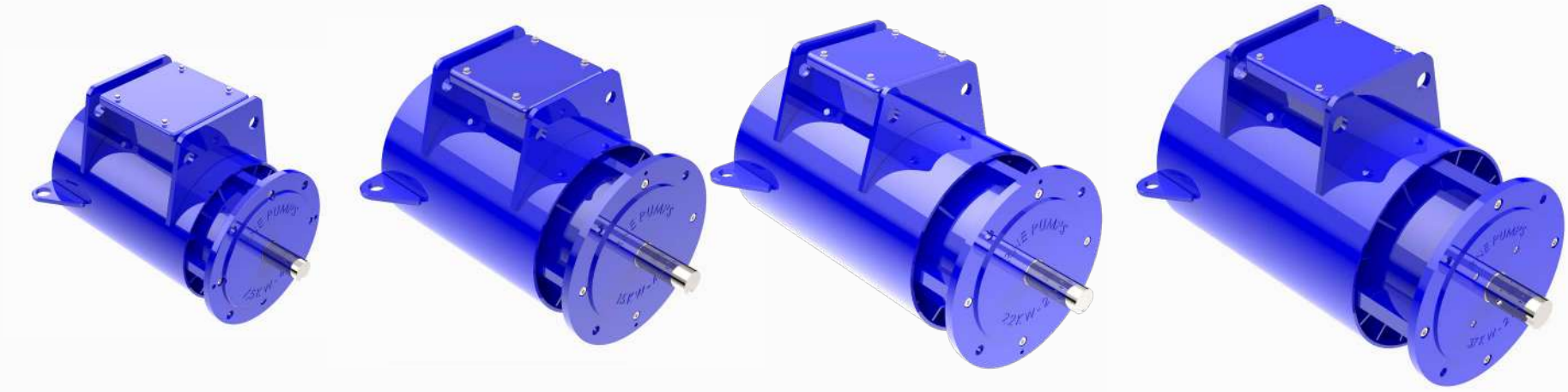
RNE Pumps manufacture our own unique squirrel cage, flange mounted All Steel motors and guarantee they will endure rugged and unsympathetic conditions.

All motors are produced to IEC specifications.



Voltage: 380/400 Volt | 525/550 Volt | 1000 Volt
Three Phase: 50hz | 60hz

- 7.5kw – 4 Pole (1450rpm)
- 15kw – 4 Pole (1450rpm)
- 15kw – 2 Pole (2900rpm)
- 22kw – 2 Pole (2900rpm)
- 37kw – 2 Pole (2900rpm)
- 37kw – 4 Pole (1450 rpm)
- 45kw – 4 Pole (1450rpm)
- 55kw – 4 Pole (1450rpm)



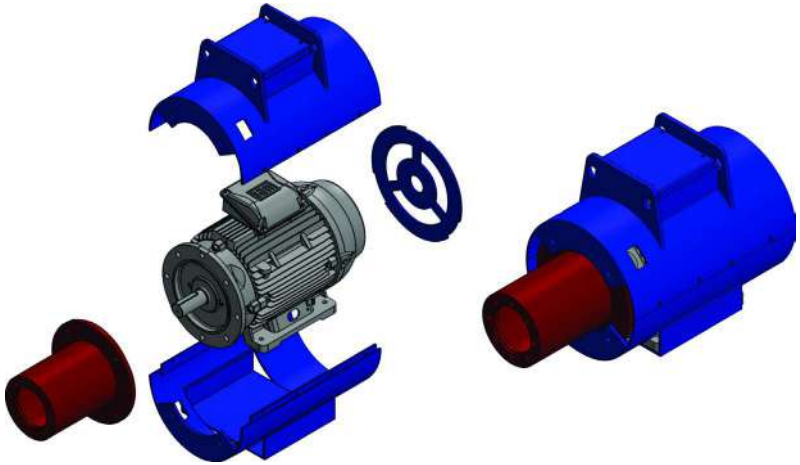
CAST IRON MOTORS

RNE Pumps supply a range of accredited Cast Iron Motor manufacturers' products or as a bare pump for you to fit your own Motor. We especially work closely with ZEST/WEG Electric motors , a global leader in the industry

Voltage: 380/400 Volt | 525/550 Volt | 1000 Volt
Three Phase: 50hz | 60hz

- 5.5kw – 4 Pole (1450rpm)
- 7.5kw – 4 Pole (1450rpm)
- 15kw – 4 Pole (1450rpm)
- 15kw – 2 Pole (2900rpm)
- 22kw – 2 Pole (2900rpm)
- 37kw – 2 Pole (2900rpm)
- 37kw – 4 Pole (1450 rpm)
- 45kw – 4 Pole (1450rpm)
- 55kw – 4 Pole (1450rpm)
- 55kw – 2 Pole (2900rpm)
- 75kw – 4 Pole (1450rpm)
- 75kw – 2 Pole (2900rpm)





RNE STEEL FRAME SHROUD

RNE Manufactures and supplies a Steel Shroud for Cast iron Motor protection.

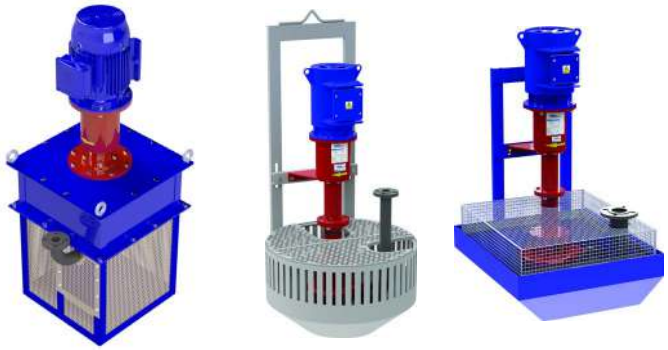
Available for most common motor manufacturers and for all sizes for the RNE Pump.

VALVES

RNE manufactures our own range of non return ball valves

- Intended for added pump protection
- High chrome 600+ Brunel hardness
- Stainless steel and/or with thermal ceramic coating available
- Fits all pump sizes
- Or accredited cast iron non return ball valves





SUMPS

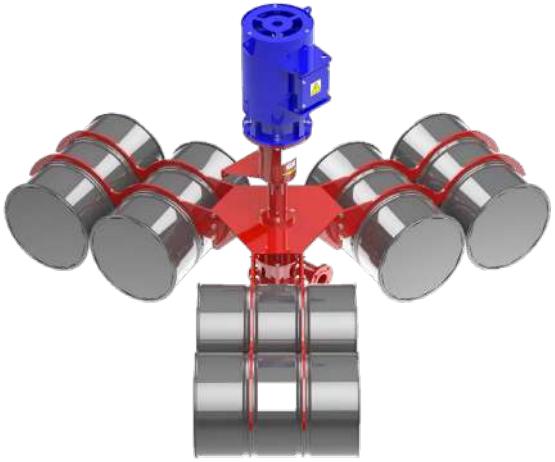
RNE Manufactures and supplies a complete sump installation

- Available for all common size pumps
- Hot-Dipped Galvanized Steel
- Stainless Steel
- Round or square
- Protects and increases life of pump and motor
- Easy access for maintenance and pump exchange
- Easy to install
- Provides mounting for starter panel

RAFTS

RNE Manufactures and supplies a simple barrel type floating raft

- Available for all common size pumps
- Easy to install
- Uses an unslotted suction inlet (supplied)
- Accommodates different length tail pipes
- Ballast can be varied for specific stability
- used on underground dam
- Settler dam





CASSETTES

Specialized turnkey movable application

- Available for all common size pumps
- Protects and increases life of pump and motor
- Easy access for maintenance and pump exchange
- Starter Panel pre-mounted and connected to Motor
- Hoses, valves, splitters, agitation
- Towable or liftable
- Remove the entire pump installation for maintenance off site

STARTER PANELS

RNE supplies approved Starter Panels and Boxes

- Available for all common size pumps
- Also available as Flameproof Panels
- VSD's available for all size pumps





HOSES

RNE supplies approved Rubber "Elephant" hoses directly from the manufacturer

- Table "D" flanged both ends – standard supply
- Sizes from 50mm to 300mm
- Standard Supply – 3m or 6m lengths...other lengths can be accommodated
- Discharge Bend Rubber Hoses available to help reduce pipe strain associated with pump start up.
- HDPE options also available