



Designed with your industry in mind

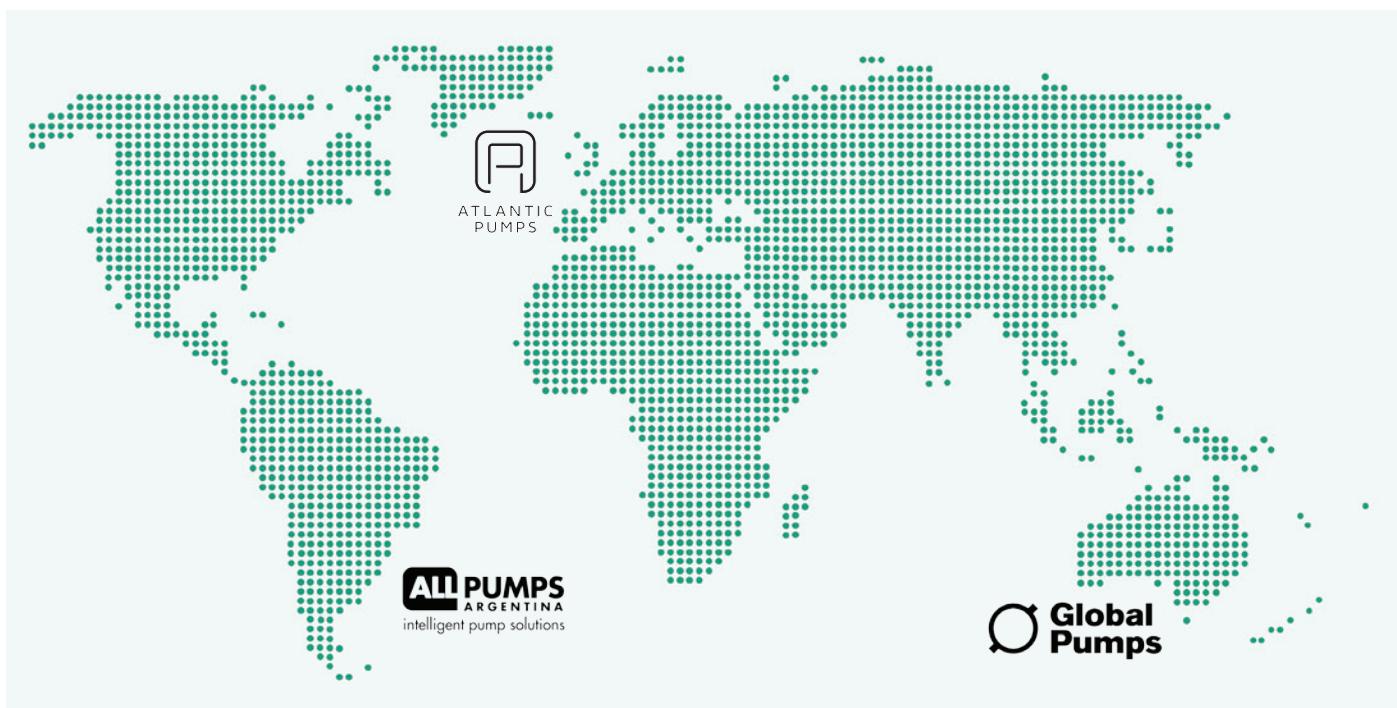




Providing pump solutions to industry, globally

Intrax is a global leader in specialist pumping equipment for difficult and challenging industrial applications. We are best known for excellence in bringing innovative and cost-saving ideas to our customers as well as offering unrivalled levels of customer service and response times.

Our combined wealth of experience and technical know-how in highly sophisticated applications has allowed us to work closely with the engineering teams on large-scale projects across the globe firmly establishing us as their trusted partner.



AUDEX an Intrax brand

Expertise

Intrax tackles aggressive and abrasive pumping challenges that conventional pump manufacturers shy away from. An in-depth cross organizational knowledge of aggressive fluid handling and an association with leading polymer developers and foundries globally provides a level of expertise disproportionate to the individual companies and brands.

Understanding

The Intrax companies and brands have truly evolved to relieve customer pain points and hence bring a refreshingly different approach to the rigid stance often taken by market incumbents. Intrax products have also evolved intelligently, influenced by individual customer's demands, and this progress is on-going.

Energy

Our partners often comment on the energy and motivation within our companies and how enjoyable it makes their interactions with us. We think that this is because of the ethos of our brilliant, highly-trained workforce who have been recruited to deliver cutting-edge solutions without the prejudices of a lifetime of offering conventional and often outdated technology.

Innovation

A relentless drive to improve on the status quo of high value pump installations. Intrax has a culture of market disruption bringing value to customers, ranging from small, yet significant, product modifications which address regional challenges, to in-depth R&D and new product designs.

THE AUDEX STORY

Audex are respected manufacturers of industrial submersible and vac-prime self-priming dewatering pumps. Our pumps have been specifically developed for use in the toughest and most abrasive of applications and environments. Trusted by operators of quarries, mines and recycling facilities, Audex pumps represent quality and reliability giving you superior performance and reduced downtime. Pumps that suit your application better because they have been designed with your industry in mind.

Audex pumps are available in a range of sizes from 2" to 10" discharge, these robust pumps feature heavy-duty cast bodies, oversize shaft and bearings, hardened impellers and nitrile-lined diffusers and wear plates to maximize wear life when pumping abrasive liquids. Polyurethane lined diffuser and wear plates are available for extreme wear applications and the pumps are available in high head and stainless steel variants.



The submersible range of pumps are available with a seal fail detector system which monitors moisture levels and shuts down the pump in the event of seal wear or failure. This avoids costly rewinds and allows for a quick parts replacement without a costly full pump rebuild. Audex pumps also allow you to adjust the diffuser to compensate for wear.

Audex also manufacture a range of pontoons to mount our pumps on when installing in a lagoon, and discharge units to monitor site discharge.

All this adds to up to increased pump life and less pump related down-time even in the most stringent environments

Audex Pumps – designed with your industry in mind.



INDUSTRIES & APPLICATIONS

Dewatering

Water can contain many different suspended solids, requiring different pump technology and different methods. That's why choosing a total solution for dewatering is key to ensuring successful, cost effective operations. Audex while predominantly a clear water pumping solution has a robust grill on the inlet to the pump which allows for its use in conditions where normally submersible pumps would struggle. The overall design and build quality of Audex makes it stand the test of time in these harsh conditions, all the while providing you with a highly reliable and efficient solution.

Wash Plant Feed

Often mining and ore processing can unearth precious metals in trace amounts. By effectively washing the output of the operation higher profits can be obtained by isolating these desirable materials as well as other useful materials. Washing aggregates and ore mining by-products is essential for unlocking the full potential of any mining operation.

The reliable and efficient management of water slurries which have a high solid content is therefore necessary for a profitable washing process. Audex often is the pump of choice in a wash plant feed as the water source is usually reasonably clear water and Audex can provide a large volume reliably.

Sump Pumps

Sumps are often found in wash plants and machinery pits and the collected water often contains a mixture of solids and a relevant pump is required for the level of solid content. Sump pumps have to deal with the harsh conditions arising from a mixture of machinery run off, ground water and general drainage water. These sumps quickly fill with silt which needs to be removed with the water in order to keep the sump operational. For these reasons a ruggedly designed pump with features to deal with a variety of different solid content for a reliable and long term solution is required. Which type and brand of pump depends on the size of the application however for near clear water conditions an Audex is an excellent choice.



CONTINUOUS IMPROVEMENT & PRODUCT DEVELOPMENT

- Continuing to work with clients to develop ever improved products and solutions is key to our future development.
- Our engineers, based in Sheffield, UK, are working on innovative designs to reduce costs and maintenance downtime.
- The close proximity of the Advanced Manufacturing Park, home to companies such as Boeing and Rolls Royce, gives a ready availability of access to leading technologies, all in compliance with the strictest environmental and safety standards.
- Recent innovations from Audex include the Self Priming Unit, Audex Pontoon and the Discharge Unit.



AUDEX AW SERIES

Key Points of AW Range

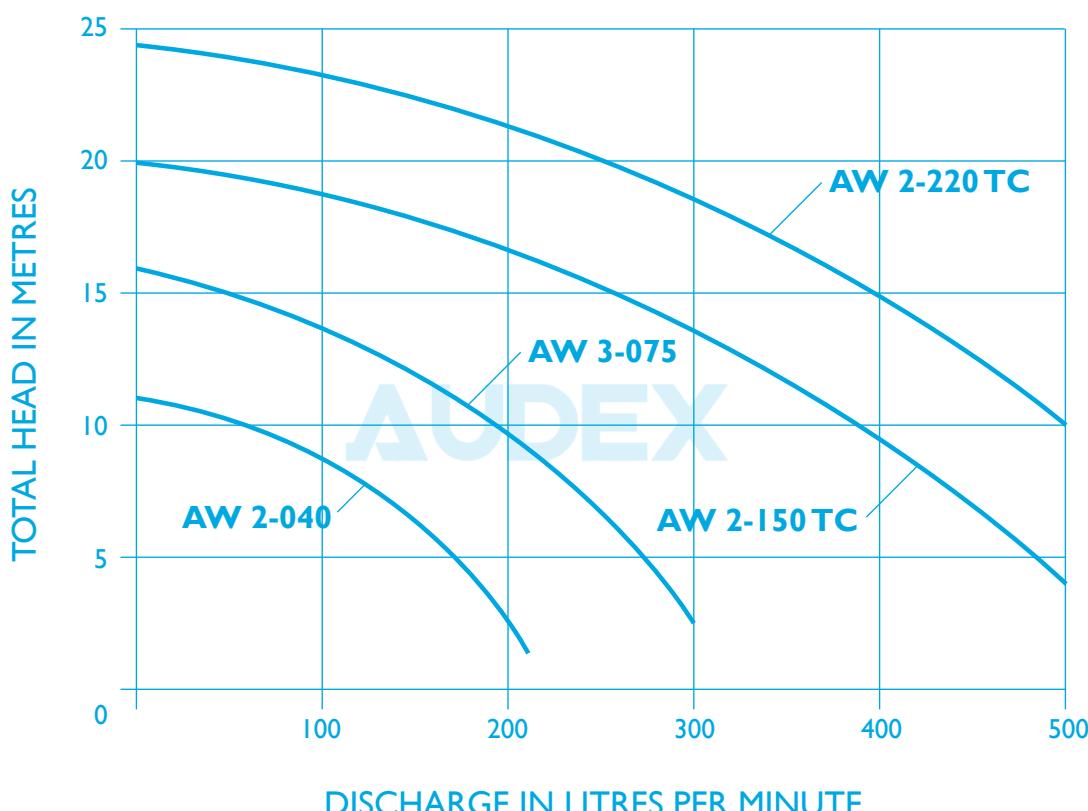
- The Audex AW range of pumps is ideal for handling corrosive and abrasive applications.
- The range offers exceptional service life with minimum running costs and repairs.
- Reliable, industry-proven and affordable

AW 2-040 and AW 3-075

The Audex AW 2-040 (2") and the AW 3-075 (3") submersible dewatering pumps are predominantly used as contractor pumps for site drainage duties. A cast iron vortex impeller is fitted to both models and offers excellent wear resistance on applications where the water contains sand and silt in suspension, thus maintaining performance and reliability.

AW Compact Range - available with or without Float

CODE	MODEL	MOTOR		CURRENT	DIMENSIONS		STRAINER	WEIGHT
		kW	ph		AMPS	H	W	
P10038	AW 2-040 SA (Float)	0.4	1	5	365	237	6	13.5
P10037	AW 2-040 SM	0.4	1	5	365	237	6	13.5
P10040	AW 2-040 VA (Float)	0.4	1	3	365	237	6	13.5
P10039	AW 2-040 VM	0.4	1	3	365	237	6	13.5
P10041	AW 2-040 TM	0.4	3	1.1	365	237	6	13.5
P10043	AW 3-075 SA (Float)	0.75	1	10	390	284	6	18
P10042	AW 3-075 SM	0.75	1	10	390	284	6	18
P10045	AW 3-075 VA (Float)	0.75	1	5.4	390	284	6	18
P10044	AW 3-075 VM	0.75	1	5.4	390	284	6	18
P10046	AW 3-075 TM	0.75	3	1.7	390	284	6	18



AUDEX AW SERIES

AW 2-150, 2-220, 3-400, 4-600, 6-900 and 8-2200

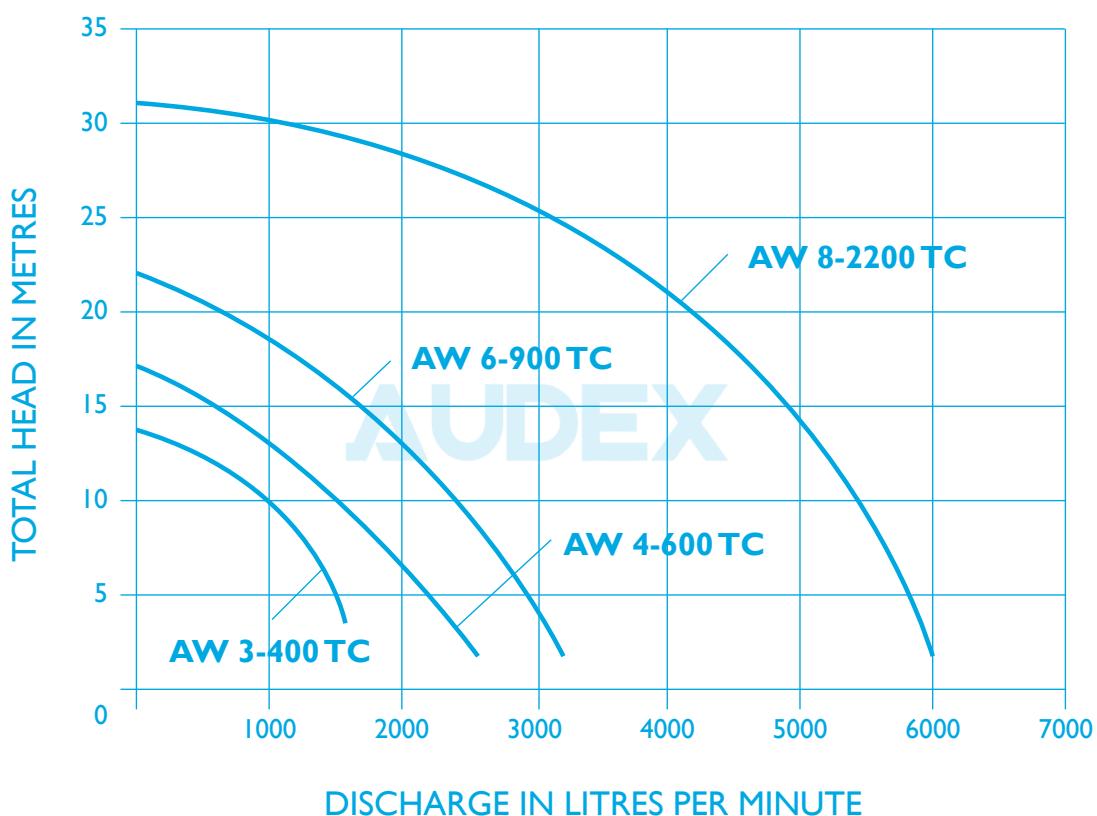
The six 2-8" extra powered submersible slurry pumps are slim in design with a top discharge enabling installation in smaller casing plus a 4-pole motor for an increased lifetime and greater convenience. All feature a chrome iron impeller and wear plates and chrome or high chrome agitator.

For the performance curve of the AW 2-150 and 2-220, see page 6.



AW Standard Range

CODE	MODEL	MOTOR		CURRENT	DIMENSIONS		STRAINER	WEIGHT
		kW	ph		H	W		
P11252	AW 2-150 TC	1.5	3	3.5	522	235	10	37
P11253	AW 2-220 TC	2.2	3	5	522	235	10	40
P10358	AW 3-400 TC	5	3	10.2	816	350	30	119
P10359	AW 4-600 TC	6	3	13.8	844	415	30	151
P10360	AW 6-900 TC	9	3	19.5	889	434	30	183
P10361	AW 8-2200 TC	22	3	42	1245	578	30	434



AUDEX 2" AS SERIES

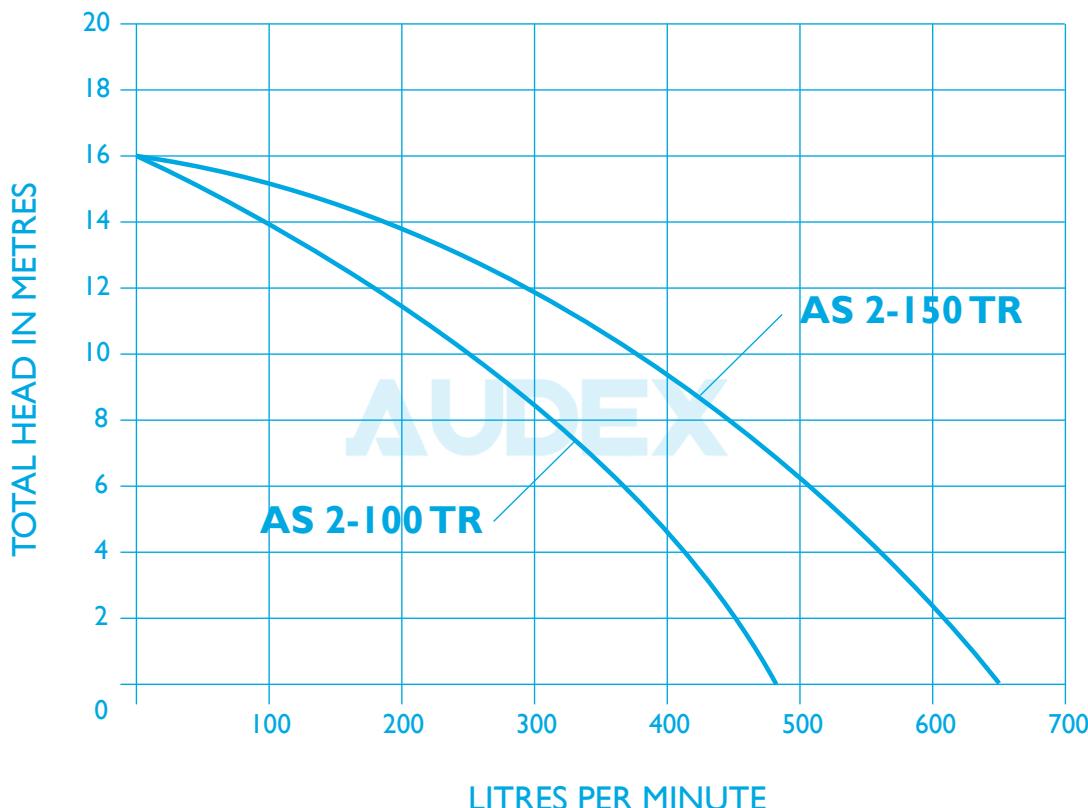
Key Points

- The Audex 2" range are portable electric submersible pumps, ideal for corrosive and abrasive applications.
- The pumps are of rugged construction, industry-proven and affordable.
- Heavy duty cast iron body
- Lifting handle for carrying and suspending pumps
- Available in 230v and 415v
- Exceptional service life with minimum running costs and repairs.
- Epoxy coated Aluminum Outer Casing
- Epoxy coated Extruded Aluminum Stator Casing
- Nitrile Rubber– Lined Diffuser. Polyurethane optional
- Shaft: 431 Stainless Steel
- Hardware: 304 Stainless Steel
- Impeller: Nitride Hardened 410SS to 56HRC is standard
- pH Range: 5 - 8



AS Range - 2" Discharge Size

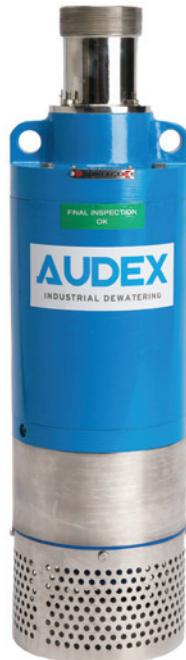
CODE	MODEL	MOTOR		CURRENT	DIMENSIONS		STRAINER	WEIGHT
		kW	ph		AMPS	H	W	
P10015	AS 2-100 TR	1	3	2.3	419	159	6	16
P10016	AS 2-150 TR	1.5	3	3.9	432	159	6	18



AUDEX 3" AS SERIES

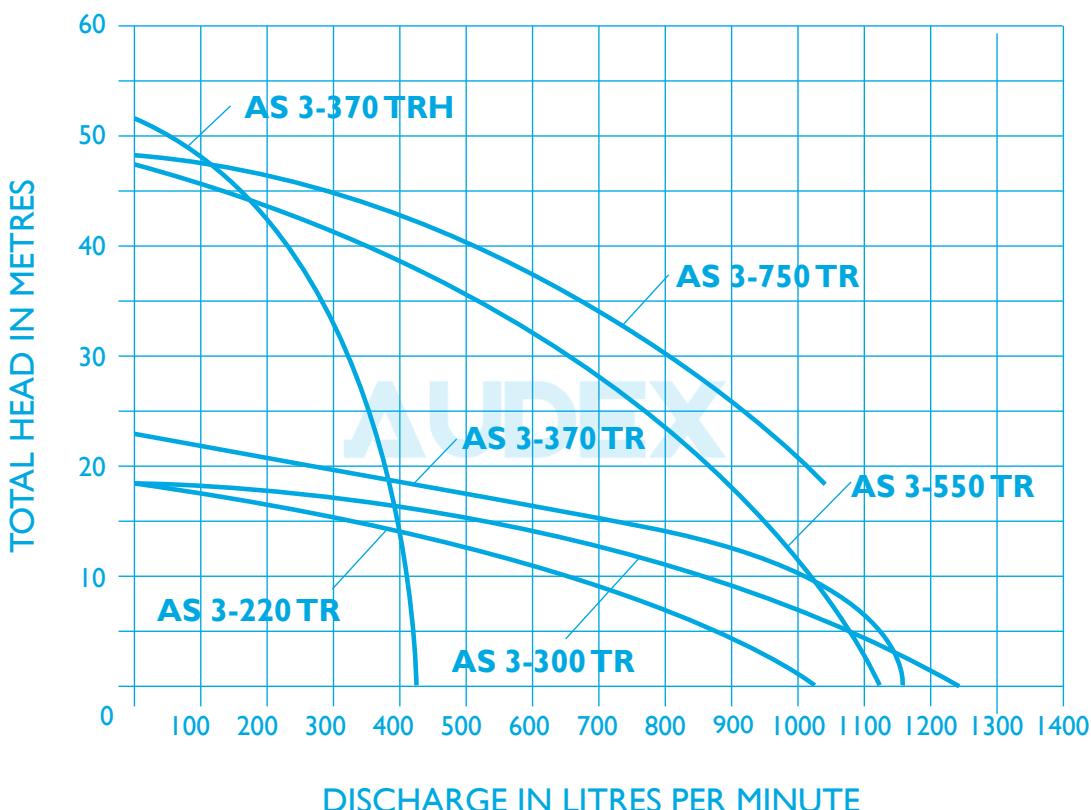
Key Points

- The Audex 3" range are portable electric submersible pumps, ideal for corrosive and abrasive applications.
- Heavy duty cast iron body
- Two lifting eyes for suspending pump
- Proven and reliable design
- Rugged construction
- Corrosion resistant epoxy finish
- Up to 7.5 kW Motor
- Exceptional service life with minimum running costs and repairs.
- Epoxy coated extruded aluminium outer casing and stator casing
- Nitrile rubber-lined diffuser/wear plate. Polyurethane optional
- Shaft: 43L stainless steel
- Hardware: 304 stainless steel
- Impeller: nitride hardened 410SS to 56HRC is standard
- pH range 5 - 8



AS Range - 3" Discharge Size

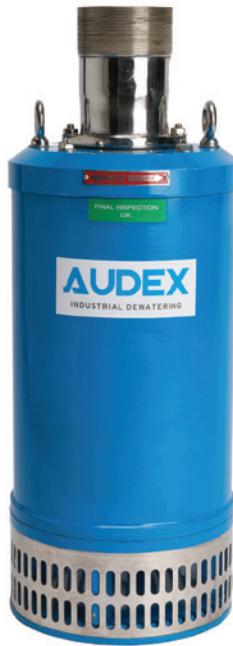
CODE	MODEL	MOTOR		CURRENT	DIMENSIONS		STRAINER	WEIGHT
		kW	ph		H	W		
P10018	AS 3-220 TR	2.2	3	5.5	667	191	6	35
P10019	AS 3-300 TR	3	3	5.5	699	191	6	36
P10020	AS 3-370 TR	3.7	3	8.1	640	276	25 x 6	50
P10021	AS 3-370 TRH	3.7	3	8.1	640	276	6	52
P10022	AS 3-550 TR	5.5	3	12.5	725	276	6	61
P10023	AS 3-750 TR	7.5	3	16	750	276	6	67



AUDEX 4" AS SERIES

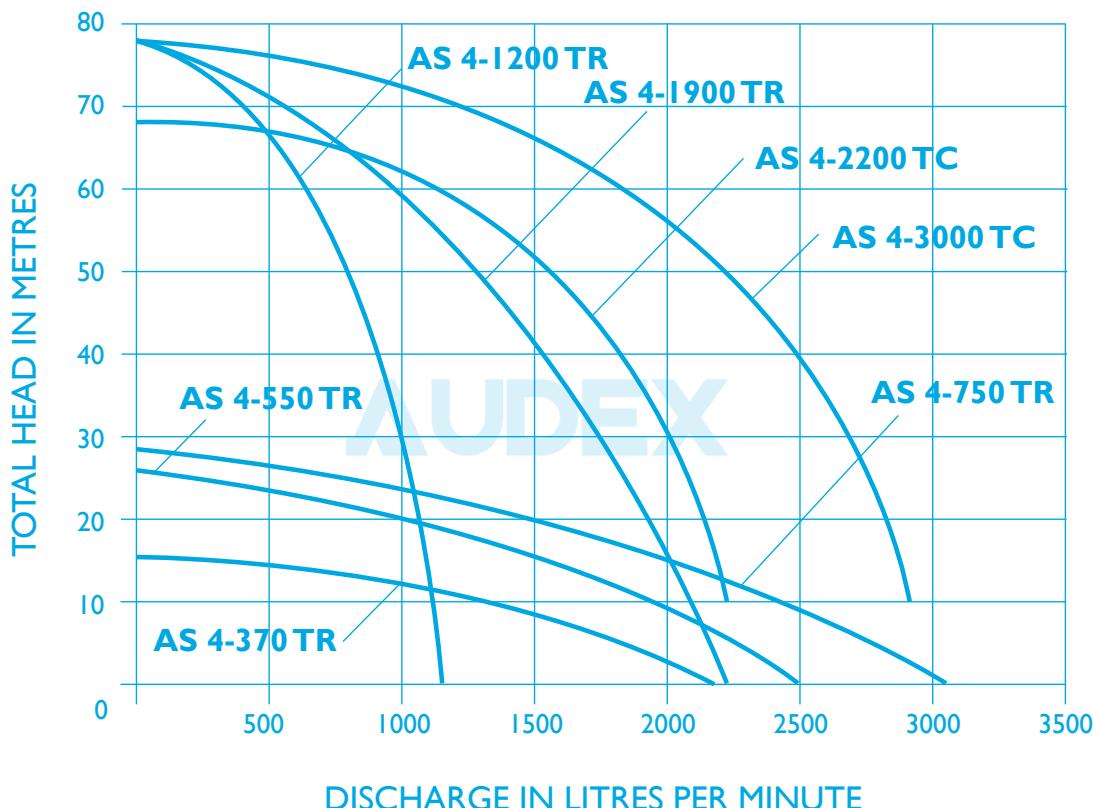
Key Points

- The Audex 4" range are portable electric submersible pumps, ideal for corrosive and abrasive applications.
- Heavy duty cast iron body
- Two lifting eyes for suspending pump
- Proven and reliable design
- Rugged construction
- Corrosion resistant epoxy finish
- Up to 30kW Motor
- Exceptional service life with minimum running costs and repairs.
- Epoxy coated aluminium outer casing
- Epoxy coated extruded aluminium stator casing
- Nitrile rubber-lined diffuser/wear plate. Polyurethane optional
- Shaft: 43L stainless steel
- Hardware: 304 stainless steel
- Impeller: nitride hardened 410SS to 56HRC is standard
- pH range 5 – 8



AS Range - 4" Discharge Size

CODE	MODEL	MOTOR		CURRENT	DIMENSIONS		STRAINER	WEIGHT
		kW	ph		H	W		
P10024	AS 4-370 TR	3.7	3	8.1	640	276	25 x 6	50
P10025	AS 4-550 TR	5.5	3	12.5	725	276	30 x 9.5	59
P10026	AS 4-750 TR	7.5	3	16	750	276	30 x 9.5	64
P10027	AS 4-1200 TR	12	3	25	845	360	10	140
P10028	AS 4-1900 TR	19	3	39	915	400	10	186
P11442	AS 4-2200 TC	22	3	41.5	1374	420	6	370
P11443	AS 4-3000 TC	30	3	54	1374	420	6	375



AUDEX 6" AS SERIES

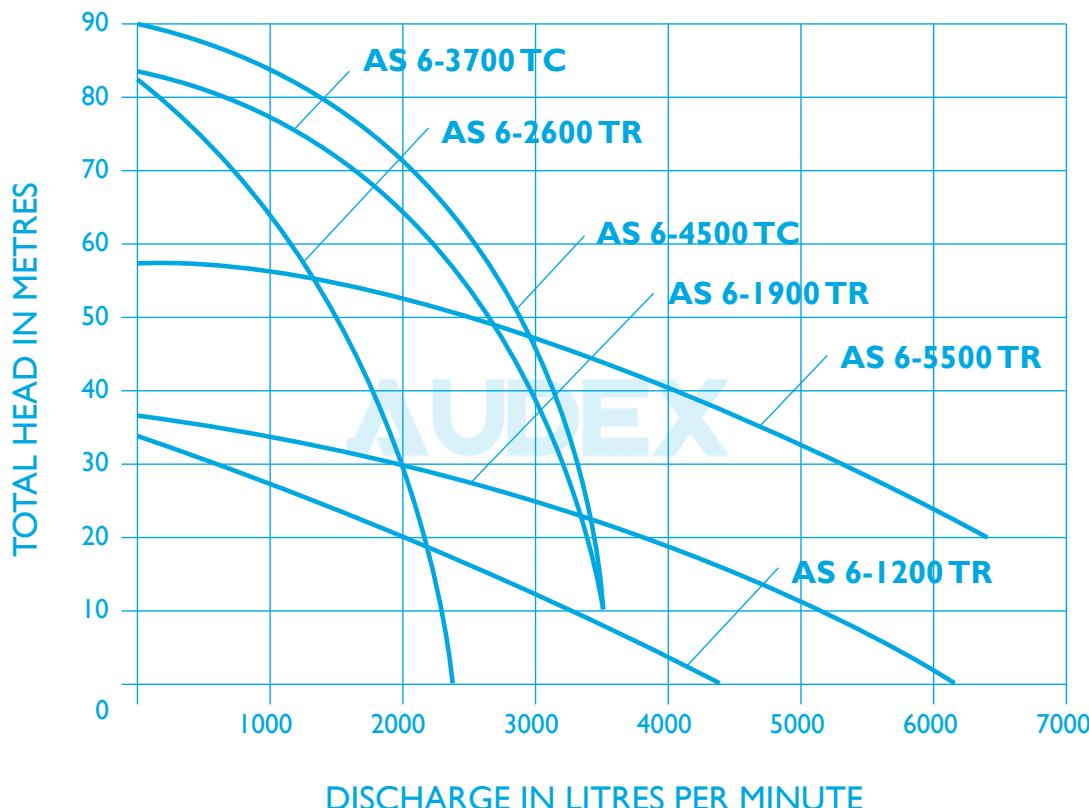
Key Points

- The Audex 6" range are portable electric submersible pumps, ideal for corrosive and abrasive applications.
- Heavy duty cast iron body
- Two lifting eyes for suspending pump
- Proven and reliable design
- Rugged construction
- Corrosion resistant epoxy finish
- Up to 55 kW Motor
- Exceptional service life with minimum running costs and repairs.
- Epoxy coated steel outer casing
- Aluminum stator casing
- Nitrile rubber-lined diffuser/wear plate
- Shaft: 431 stainless steel
- Hardware: 304 stainless steel
- Impeller: nitride hardened 410SS to 56HRC is standard
- pH range 5 - 8



AS Range - 6" Discharge Size

CODE	MODEL	MOTOR		CURRENT	DIMENSIONS		STRAINER	WEIGHT
		kW	ph		H	W		
P10029	AS 6-1200 TR	12	3	25	845	360	25.5 x 5	127
P10030	AS 6-1900 TR	19	3	39	915	400	25.5 x 10	180
P10031	AS 6-2600 TR	26	3	51	1029	400	10	238
P11182	AS 6-3700 TC	37	3	66	1424	530	15	570
P11444	AS 6-4500 TC	45	3	80	1424	530	6	575
P10033	AS 6-5500 TR	55	3	105	1538	776	15 x 45	600



AUDEX 8" AS SERIES

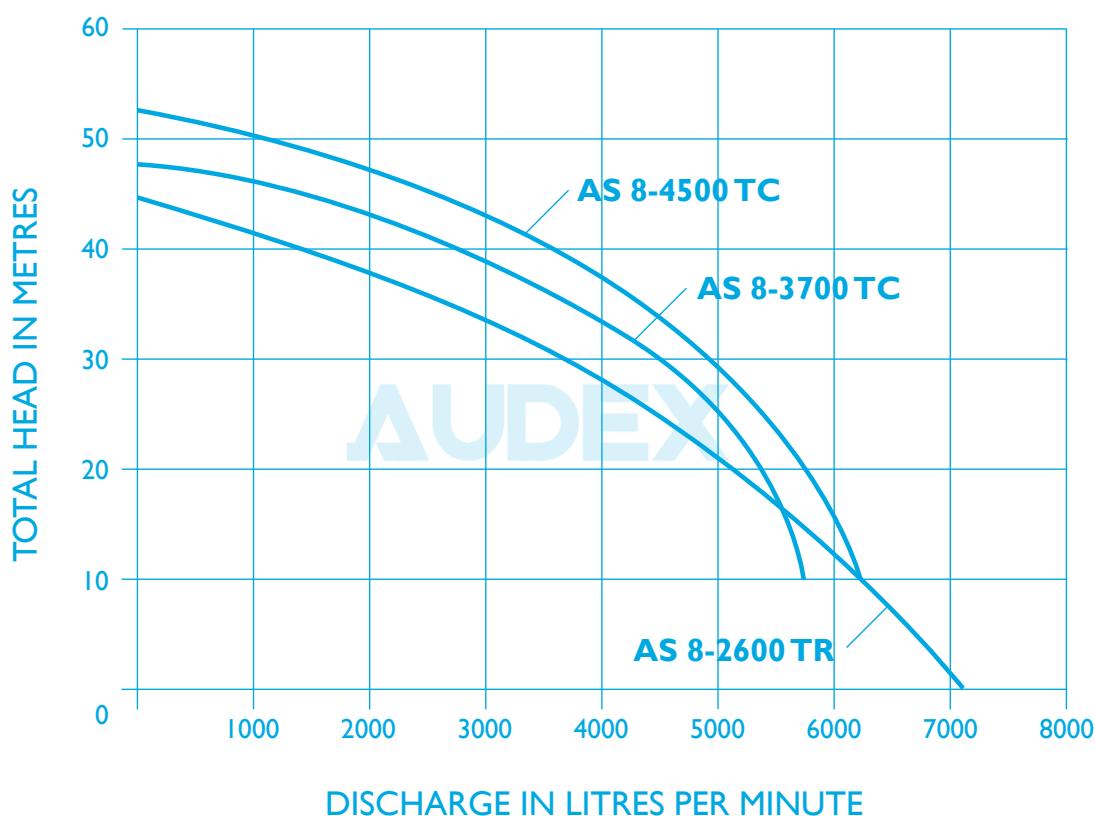
Key Points

- The Audex 8" range are portable electric submersible pumps, ideal for corrosive and abrasive applications.
- Heavy duty cast iron body
- Two lifting eyes for suspending pump
- Proven and reliable design
- Rugged construction
- Corrosion resistant epoxy finish
- Exceptional service life with minimum running costs and repairs.
- Epoxy coated steel outer casing
- Aluminium stator casing
- Nitrile rubber-lined diffuser/wear plate
- Shaft: 43L stainless steel
- Hardware: 304 stainless steel
- Impeller: nitride hardened 410SS to 56HRC is standard
- pH range 5 – 8



AS Range - 8" Discharge Size

CODE	MODEL	MOTOR		CURRENT	DIMENSIONS		STRAINER	WEIGHT
		kW	ph		H	W		
P10034	AS 8-2600 TR	26	3	51	1029	400	25.5 x 10	232
P11220	AS 8-3700 TC	37	3	66	1474	530	20	575
P11445	AS 8-4500 TC	45	3	80	1474	530	20	580



AUDEX 10" AS SERIES

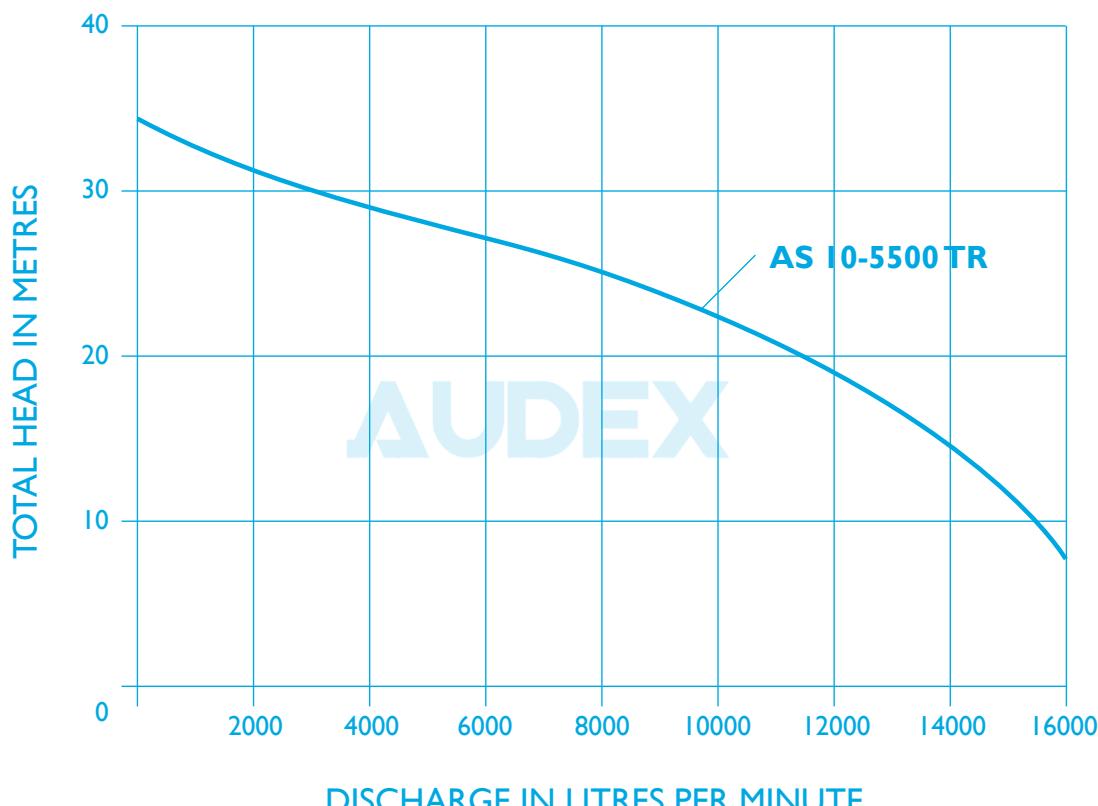
Key Points

- The Audex AS 10-1204RT is an electric submersible pump, ideal for corrosive and abrasive applications.
- Heavy duty cast iron body
- Two lifting eyes for suspending pump
- Stainless steel strain relief on cable
- Proven and reliable design
- Rugged construction
- Corrosion resistant epoxy finish
- 55kW Motor
- Exceptional service life with minimum running costs and repairs.
- Epoxy coated steel outer casing
- Aluminium stator casing
- Nitrile rubber-lined diffuser/wear plate
- Shaft: 43L stainless steel
- Hardware: 304 stainless steel
- Impeller: nitride hardened 410SS to 56HRC is standard
- pH range 5 – 8



AS Range - 10" Discharge Size

CODE	MODEL	MOTOR		CURRENT	DIMENSIONS		STRAINER	WEIGHT
		kW	ph		AMPS	H		
P10036	AS 10-5500 TR	55	3	105	1538	776	15 x 45	600



AUDEX AD PUMPS

Audex AD Key Points

- The AD range has been developed with ease of maintenance and customer peace of mind as a key focus.
- They have been used extensively with an excellent reliability record and great customer feedback.
- The AD range covers the most frequently needed duty points.
- They are available with a choice of diesel or electric drive, from a number of different manufacturers, to meet customers' requirements.
- The durable trolley design gives great flexibility whilst protecting the unit against onsite wear and tear.



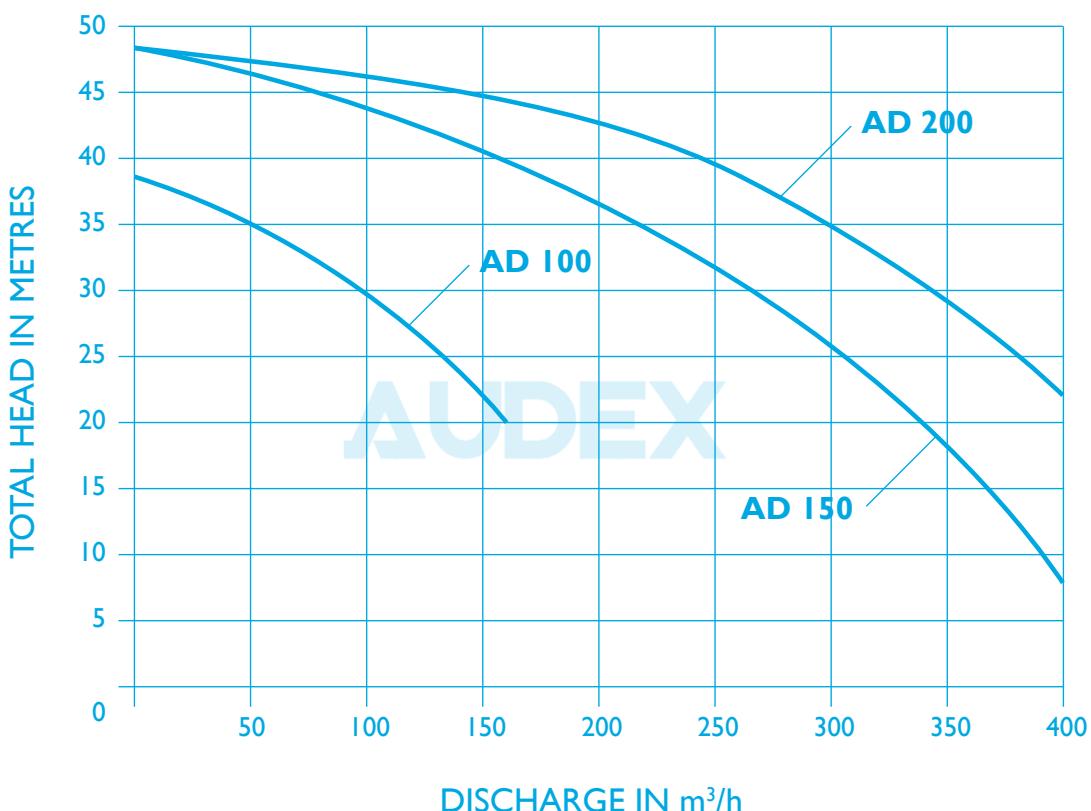
AD Pump Sets Range

CODE	MODEL	DIMENSIONS			OUTLET	WEIGHT
		H	W	L	inches	kg
P10047	AD 100	1500	1450	1940	4	998
P10553	AD 150	1635	1450	2100	6	1325
P10049	AD 200	1809	1570	2630	8	2200



Audex AD Priming System

All Audex AD pumps are fitted with the new Audex Priming System. This priming system requires no regular maintenance and has proved capable of keeping the pumps going far longer than the pumps they have replaced. Traditional sliding vane priming systems require daily maintenance, taking up valuable time for key staff, and if not maintained will fail, leaving you with all the costs of downtime on top of the costs of a replacement.



AUDEX PONTOONS

Audex are able to offer a range of pontoons to suit various types of pumps including submersible and horizontal centrifugal pumps. The pontoons are made to order to suit the customers' exact requirements and specification. They consist of a heavy duty mild steel structure which is supported by patented blow molded plastic buoyancy sections. The buoyancy sections offer impressive payloads and are extremely hard wearing and robust while the flexible design allows the option of mounting pumps in various ways to suit all pumping applications. For further information on our pontoons please call our UK distributors, Atlantic Pumps on 0800 118 2500.

Case Study

We're always looking to save our clients' money and energy and this was superbly demonstrated recently when we produced two pontoons for a quarry in southern Scotland. Each pontoon held an 8" Audex submersible pump, also supplied by Atlantic Pumps.

Since installing the two bespoke pontoons and 8" pumps, we've been contacted by the delighted Quarry Manager regarding the outstanding saving he's made. 'I've done some rough initial calculations, the pump that runs to top up the plant pond will save us a minimum of £8000 a year on diesel. Well happy with that.'

The team here at Atlantic Pumps were also delighted with the saving and at the project as a whole. 'From placing the order to point of delivery only took 2-3 weeks and that includes the building of the two pontoons' said Sales Advisor, Mark McCreadie. 'I, along with the rest of the team thoroughly enjoyed working on this job and we're really keen to help other quarries make such huge savings'.



AUDEX DISCHARGE UNIT

Hanson UK produce aggregates (crushed rock, sand and gravel), ready mixed concrete, asphalt, cement and cement related materials. They are part of the HeidelbergCement Group, which is a leading global supplier of aggregates, cement and concrete. They operate around 300 manufacturing sites in the UK and employ over 3,000 people. Hanson UK Area Production Manager, Pete Darlow, an existing client who works in the concrete side of the company, contacted Atlantic Pumps in the summer of 2016 with regard to a site in West Yorkshire. He was looking for a way to accurately measure recycled water that was being discharged back into an on-site river once the site wedge pit reached capacity.

The site operates under a water discharge consent which sets specific limits on the discharge quantity and rate. Previously this had been measured using a production water equation for the discharge waters. However, the equation does not take into consideration all of the waters collected from the site (rainfall) that might come in to contact with the production process, hence the need to install a more robust monitoring system that can record all waters discharged.

Atlantic Pumps worked with fellow Intrax Global Group members, Audex to develop a solution. Together they developed what is now known as the Audex Discharge Unit.

Measuring 1000mm x 600mm, the stand-alone unit includes a 2" self-priming dirty water pump, Norstron flow meter, thermistor, control panel and double floats which sit near the wedge pit. The unit is easy to operate and can be used in manual or automatic mode and is built into a steel case for security and protection against the weather. Talking about the recently launched Discharge Unit, Atlantic Pumps Sales Coordinator and concrete industry specialist, Mark McCreadie said "The Discharge Unit is currently on trial at a West Yorkshire site and there's been no problems at all so far. This is Audex at its best, spearheading innovation in the concrete market"



AUDEX SEAL PROTECTION DEVICE

Here at Audex we strive to bring fresh ideas and products to the market that help our customers maintain a competitive edge.

The Audex Seal Protection Device does exactly that. Available as an extra on any Audex pump, this device is guaranteed to save you money and time. The Audex Seal Protection Device turns the pump off as soon as it senses any moisture behind the first seal. The red light indicates a seal failure and the pump is automatically turned off. This removes the risk of the second seal failing and the motor burning out which would clearly result in a costly pump rebuild. Therefore you only have to replace a low cost seal rather than expend thousands on a new pump or refurbishment. Furthermore, the pump is only likely to be out of action for a matter of hours. Contrast this with the possibilities of a long and costly repair project or long lead time on a new pump.



INTRAX PUMP REGISTER

The Intrax Pump Register is the industry-leading online asset management tool that helps oversee your pumps, allowing you to maintain the highest level of service.

We record all the details of the pumps on your sites, including make, model, head, flow, application, general notes and a photo. Our complimentary site visit includes registering all your pumps, adding a reference tag and also making any recommendations for improvements.

Benefits of the Pump Register

- It massively speeds up quoting and hence delivery time if you have a pump that goes down
- It helps both you and Atlantic identify details when new spares are required
- It allows you to establish service reminders if needed
- If you have several sites, the register will help you to standardise your pumps, which results in simpler maintenance and better pricing.

For further information on the Pump Register or to arrange for your pumps to be loaded on to the Register call 0114 229 3144 or email info@atlanticpumps.co.uk

7 CAUSES OF SUBMERSIBLE PUMP FAILURE

1. Reverse Rotation

This is where the pump is wired incorrectly meaning the motor runs backwards. When this happens, very little water will be pumped but it does serious damage to the pump, polishing the impeller and leading to cavitation*.

2. Dry Running

This is where the water level drops to a point where the pump cannot draw a decent amount of water and/or starts to create a lot of disturbance in the water. This will quickly lead to cavitation*, damaging the impeller and diffuser, and quickly destroying the pump. It also causes the seal rubbers to dry out and crack which allows water into the motor

3. Running on the Right of the Curve

This is where there is less vertical head than the pump is designed to handle, which makes the pump less efficient. At an extreme this causes suction cavitation indicated by the sound of marbles being pumped and pitting around the centre of the impeller.

4. Specific Gravity

Submersible pumps are not designed to deal with high levels of solids and will usually quickly fail in slurry applications. Exceeding 1.1 – 1.2 specific gravity is a no-go, this effectively constitutes a sand slurry.

5. Cable Damage

This includes internal damage often unseen when the cable is jarred externally. It is vital that if a cable has been gashed or yanked that this is checked. The seal arrangement where the cable enters the pump body is a weak spot and the air seal can very easily be broken. Even a few drops of moisture can make the pump fail.

6. Dead Head

This is where the pump has more vertical head than it is designed for, i.e. a valve on the discharge has been closed. This causes something called discharge cavitation which is indicated by the sound of marbles being pumped, and pitting around the impeller tips and inside of the pump casing. At an extreme this can make the pump shaft break.

7. Not allowing for Discharge Piping

Discharge piping creates friction loss and it is vital that this calculation is taken in to account when specifying submersible pumps. Otherwise it will lead to dead heading, see above.

*Cavitation - this is the formation and accumulation of bubbles around a pump impeller. This tends to form in liquids of any viscosity as they are being transported through and around a pump system. When each of these tiny bubbles collapses or bursts, it creates a high energy shock wave inside the liquid. Imagine throwing a stone into a pond. The circular ripples which are created in this process are similar to cavitation bubbles exploding. The difference here is that due to the sheer number of bubbles creating these shock waves, the impeller and other pump components can be eroded over time.





Designed with your industry in mind

AUDEX

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