

- + MAGNUM SX
- + HELIX 85, 85-2, 101
- + HELIX DRIVE
- MAGNUM ESPH/CSPH
- MAGNUM LP/LE

MAGNUM LEE/LEC



FOR A GREEN WORLD



ΕN

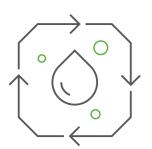


WASTE WATER TREATMENT

BAUER PUMPS

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WE HELP TO GROW.

With our extensive range of slurry products we offer you the right tools. Since 1930 we have not only been concerned about the perfect equipment for the transportation of manure but also have been caring about the right treatment and spreading of manure. Furthermore, we are specialized in developing innovative solutions for the optimal and efficient preparation of manure.

SELF-PRIMING UNIT FOR CENTRIFUGAL PUMP

- + Fills the suction line guickly and automatically;
- Works without manual valve application;
- + After the filling process the self-priming unit is deactivat.

SELF-CLOSING ELEMENT

At the pressure side closes automatically when sucking and opens when the pump delivers.



EVACUATING PUMP

Hydraulically or mechanically driven evacuates the suction line.

SYPHON

On suction side protects the vaccum pump. Remaining liquid is drained automatically into the suction stream as soon as pump starts delivering.



ACCESSORIES

HOISTING FRAME

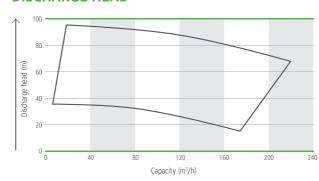


DISCHARGE HEAD



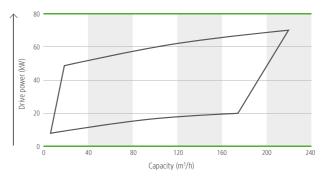
PERFORMANCE OVERVIEW

DISCHARGE HEAD



Tractor gear pump with 540 rpm. All values apply to water.

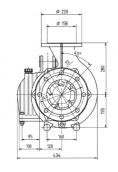
DRIVE POWER

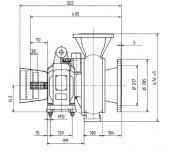


DISCHARGE HEAD

Model	Model Driving power kW		Capacity m³/h	Head m		
SM 540 L4 bis 65		540	40 – 200	95 – 70		
SM 540 L4-M	bis 45	540	40 - 200	72 – 52		

DISCHARGE HEAD





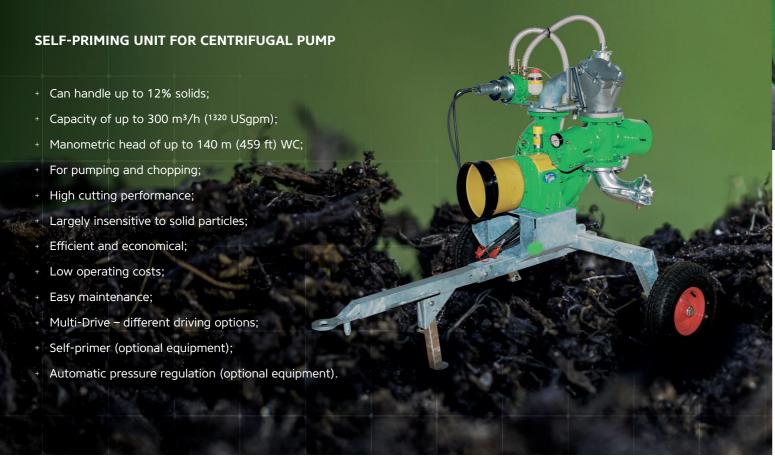




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MAGNUM SX

THE GEAR AND PEDESTAL PUMPS FROM BAUER ARE CHARACTERIZED BY THEIR EXCELLENT EFFECT AND LARGE DELIVERY HEIGHTS. COMMINUTION



PRODUCT SERIES MAGNUM SX

- * **SX 1000** with heavy-duty gear as tractor pump;
- * **SX 2000** with heavy-duty gear for Diesel engines;
- * **SX 2600** with pedestal for electric drive motors.

MOUNTING VARIANTS

- + **SX 1000** on a pump trolley;
- + **SX 1000** on a hoisting frame for three-point linkage;
- + **SX 2000** on a trailer with Diesel engine;
- + **SX 2000** on a mobile unit with Diesel engine;
- * **SX 2600** on a base plate with electric drive motor.

APPLICATIONS

- Agriculture: hose lines, slurry irrigation, pump tankers, mobile and stationary transfer pumps, biogas plants;
- + Foodstuff industry: slaughter houses, feces;
- Environmental technology: sewage sludge, digested sludge, fecal sludge;
- + Bio-energy industry





TECHNICAL FEATURES

- Pump Housing: of special design, ensures unobstructed delivery of viscous liquids;
- **Cutting blades:** easily adjustable to maintain the ideal cutting gap, draw cut, high-grade casting;
- Suction flange: ensures enormous suction capacity, avoids turbulences;
- Protection plates: for a long service life;
- Shaft sealing: of industrial standard, double-acting mechanical seal with oil reservoir;
- Pump shaft and bearing: amply dimensioned;
- + Gearbox: of compact industrial design;
- Automatic pressure regulation: for changing conditions of use (optional equipment).

SELF-PRIMER (OPTIONAL EQUIPMENT)

Mechanical, hydraulic or electro-mechanical execution.



AUTOMATIC PRESSURE REGULATION (OPTIONAL EQUIPMENT)

For changing conditions of use



IMPELLER

High-grade casting, maximum wear-resistance, ideal runner blade geometry, draw cut, best suited for liquids containing straw or grass, open design of impeller for viscous liquids, double-acting, keeps the sealing space free of solid particles.









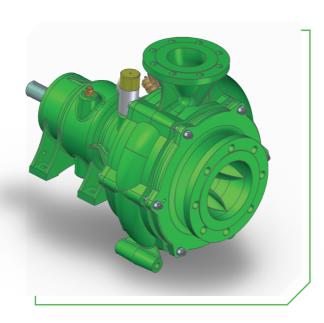
GEAR PUMP SX1000

- + Tractor gear pump with adjustable cutting device;
- + Spiral housing made of GG 25;
- + Suction flange with twist reducing function;
- ⁺ Thick matter impeller with back blades 2600 min⁻¹;
- + Thick matter impeller made of spheroidal cast iron with hardened cutting edgeshardened cutting edges;
- + Cutting flange made of chrome steel casting;
- Compact and smooth helical gear box with hardened helical gearing;
- + Mechanical seal (silicon carbide) with oil trap;
- + Flush connection with Geka-coupling;
- + Suction connection DN 150;
- + Pressure connection DN 100;
- + Drive shaft with 13/4" profile according to DIN 6911 (ISO 500).

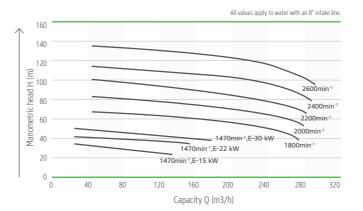


PEDESTAL PUMP SX2600

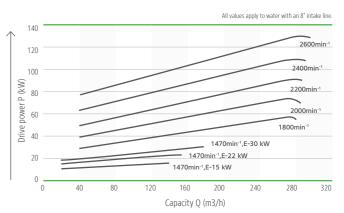
- + Pedestal pump with adjustable cutting device;
- + Spiral housing made of GG 25;
- + Suction flange with twist reducing function;
- + Thick matter impeller with back blades 2600 min⁻¹;
- + Thick matter impeller made of spheroidal cast iron with hardened cutting edgeshardened cutting edges;
- + Cast iron pedestal;
- + Pump shaft made of heat-treatable steel;
- + Mechanical seal (silicon carbide) with oil trap;
- + Flush connection with Geka-coupling;
- + Suction connection DN 150;
- + Pressure connection DN 100;
- Free shaft end Ø 42 mm for direct or V-belt drive.



PRESSURE- AND CAPACITY RANGES



POWER- AND CAPACITY RANGES



The labels of the pump characteristics refer to the rotational speeds of the respective impellers. Depending on the version used (SX 2600 – 1:1; SX 2000 – 1:1,27; SX 1000 – 1:2,57) the corresponding drive speeds can be set. The maximum speed of the pump impeller must not exceed 2600 rpm.

Pump configuration according to data sheet curves.

















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HELIX 85, 85-2, 101

THE ECCENTRIC SCREW PUMP WITH EXCEPTIONAL PERFORMANCE FOR THE MOST DIFFICULT OPERATING CONDITIONS.

- 01 Swell resistant stator with special rubber mixture;
- 02 Mechanical safety valve (optional);
- 03 Cleaning opening in the suction housing;
- 04 Drive shaft with mechanical seal running in oil bath;
- 05 Permanently lubricated cardan joints below wear free, high tear proof Elastopal cuffs;
- 06 Pump trolley with drawbar or three-point support (optional).





ECCENTRIC SCREW PUMP WITH PTO SHAFT FOR THE APPLICATION IN THE AGRICULTURAL AREA.

CHARACTERISTICS

- Abrasion-resistant, hardened rotors made of though tool steel:
- Thermally optimized bearing for continuous operation;
- + Mechanical seal running in oil bath;
- Large suction and pressure connections to reduce danger of blockage;
- Cleaning opening in the suction housing;
- Robust permanently lubricated cardan joints;
- + Compact design;
- Very smooth running;
- + Maintenance friendly;
- + Self-priming.

FOR THICK AND THIN LIQUID MEDIA:

- + Thick manure;
- + Liquid manure;
- + Sewage sludge;
- + Etc.

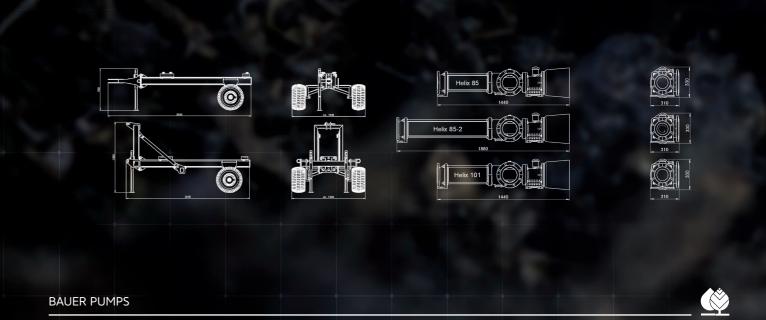
APPLICATIONS

- + Transferring liquids;
- + Tubing;
- + Rinsing.

TECHNICAL DATA

Pump model	Performance kw	Drive speed max. rpm	Discharge head in ft at	Flowrate m³ / h	Discharge head in m at	Flowrate m³ / h
HELIX 85	12	540	120	22	45	35
HELIX 85-2	17	540	160	29	80	32
HELIX 101	17	540	80	35	20	63

Nominal capacities measured with water.



HELIX DRIVE

THE ECCENTRIC SCREW PUMPS WITH EXCEPTIONAL PERFORMANCE.

CHARACTERISTICS

- Abrasion resistant, hardened smooth-running cupped rotors made of tough toolsteel – manufactured by BAUER with a special technology and absolutely break-proof;
- + Thermally optimized bearing for continuous operation;
- + Mechanical seal running in oil bath;
- + Large dimensioned intake and pressure connections to reduce plugging;
- + Access eye in intake housing;

- + Robust, permanently lubricated cardan joints;
- Compact footprint;
- + Chassis designed for quick and safe mounting;
- + Quiet operation;
- + Easy to maintain;
- + Self priming.



UNIQUE ROTOR

The low friction hollow rotor – the key component of every eccentric screw pump – is manufactured in a unique special process in the BAUER factory and is absolutely break-proof.

EXCEPTIONAL SMOOTHNESS

The light weight of the low friction hollow rotor guarantees consistent running smoothness in all speed ranges.

LONGER DURABILITY

Tough tool steel and a consistent wall thickness of 8 mm prevent heat accumulation and stress cracks. The special coating applied makes for a tough and smooth surface. This process also ensures a longer life of the stator rubber, as the smooth rotor surface causes considerably less abrasion.

IDEAL FOR STATIONARY USE IN BOTH AGRICULTURAL AND INDUSTRIAL APPLICATIONS

FOR MEDIA WITH LOW AND HIGH VISCOSITY:

+ Thick slurry; + Draff;

+ Liquid manure; + Molasses;

+ Sewage sludge; + Potato pulp;

+ Bog; + Starch;

+ Spent grains; + etc.

APPLICATIONS:

- Intertank transfer;
- + Dosing;
- + Feeding;
- + Flushing;
- + Bringing in.

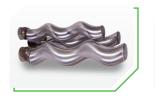


HIGH QUALITY AND RELIABILITY

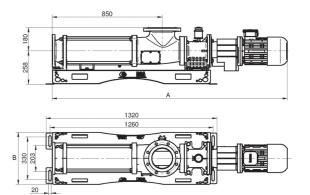
In House factory production guarantees both reliable and immediate availability of consistently high-quality spare parts.

EXTENSIVE ACCESSORIES SUCH AS:

- + Stone catcher in form of a box or can;
- + Aspiration mouth with integrated stone catcher;
- Drum filling station with adjustable discharge pipe;
- + All components for suction and pressure lines.







TECHNICAL DATA

Pump type	Performance kW	Max. pressure in m	Flow rate max. m³/h	Flange suction side DN	Flange pressure side DN	Dimensions mm A x B
HELIXDRIVE 553	5,5	30	38	150	125	1850 x 400
HELIXDRIVE 556	5,5	60	15	150	125	1745 x 400
HELIXDRIVE 753	7,5	30	48	150	125	1873 x 400
HELIXDRIVE 756	7,5	60	18	150	125	1850 x 400
HELIXDRIVE 1103	11	30	65	150	125	1868 x 400
HELIXDRIVE 1106	11	60	35	150	125	1950 x 400

Rated power with water

BAUER PUMPS



HELIX ESPH / CSPH

THE BAUER SUBMERSIBLE MOTOR PUMPS IMPRESSES WITH SINGULAR PERFORMANCE, VERSATILE APPLICATION AND LONG LIFESPAN.

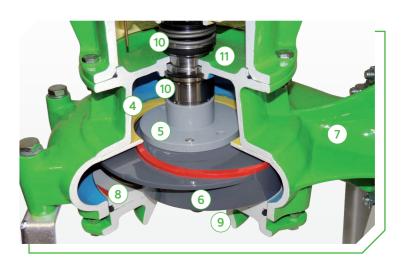
THE FACTS:

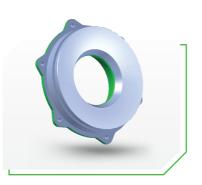
- + Conveying capacities up to 250 m3/h;
- + Outstanding cutting performance;
- + High quality chrome steel cutting unit;
- Submersible rotary motor 4,0 15,0 kW with insulation class H (optional);
- + Higher flow rate efficiency class IE 2;
- + Temperature control for application in biogas plants;
- + Additional security thanks to leakage sensors;
- + High efficiency, low operating costs.

- 01 Leakage sensor;
- 02 Casted terminal box;
- 03 Submersible motor.



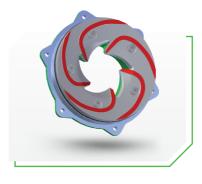
- 04 Wear disc;
- 05 Impeller hub;
- 06 Impeller;
- 07 Spiral housing;
- 08 Cutting device
- 09 Suction bell;
- 10 Mechanical sealing;
- 11 Oil collection.





HIGHER FLOW RATE

The new designed suction bell of the MAGNUM CSPH accelerates the flow of the media.



LONG LIFESPAN

The new cutting device of the MAGNUM CSP His adjustable and easy to replace. The use of high quality chrome-steel clearly improves the lifespan of the pump.



- + Stainless steel design for long life and perfect function (1.4301);
- Easy and quick mounting;
- Mounting in any kind of pit possible (floor even or gradient 1 2%);
- + Outflow flange according to DIN EN 1092-1 DN 100-PN16.





THREE WAY COCK

With rigid stirring nozzle for ESPH / CSPH from 7,5 – 15 kW

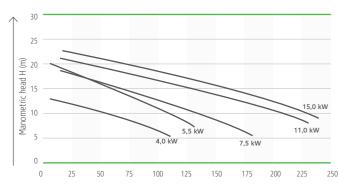




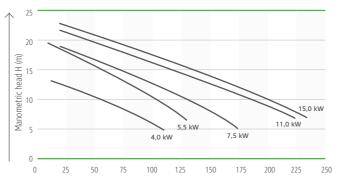
BAUER PUMPS

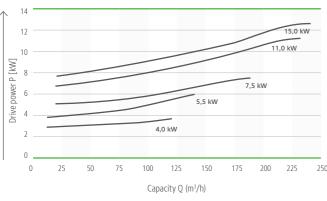
MAXIMUM PUMPING POWER FOR EVERY AGRICULTURAL CHALLENGE.

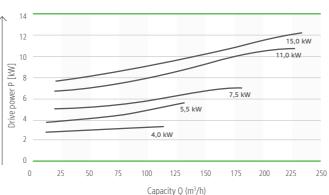
CHARACTERISTIC CURVES MAGNUM ESPH



CHARACTERISTIC CURVES MAGNUM CSPH







SUBMERSIBLE MOTOR PUMP MAGNUM ESP WITHOUT CUTTING DEVICE

Model	Discharge m³/h	Discharge head m	max. drive power kW	max. Ampere A	Drive speed min ⁻¹	Delivery connection mm
ESPH 4	20-100	13,0-7,0	4,0	8,1	1.450	DN 80
ESPH 5,5	20-120	20,0-9,8	5,5	10,7	1.450	DN 80
ESPH 7,5	20-200	19,6-5,5	7,5	15,6	1.450	DN 100
ESPH 11	20-240	22,3-8,2	11	22,0	1.450	DN 100
ESPH 15	20-250	24,0-9,1	15	28,6	1.450	DN 100

SUBMERSIBLE MOTOR PUMP MAGNUM CSP WITH CUTTING DEVICE

Model	Discharge m³/h	Discharge head m	max. drive power kW	max. Ampere A	Drive speed min ⁻¹	Delivery connection mm
CSPH 4	20-100	12,3 — 5,9	4,0	8,1	1.450	DN 80
CSPH 5,5	20-120	19,2 - 8,2	5,5	10,7	1.450	DN 80
CSPH 7,5*	20-120	19,2 - 8,2	7,5	14,9	1.445	DN 80
CSPH 7,5	20-180	19,5 — 5,1	7,5	15,6	1.450	DN 100
CSPH 11	20-230	22,0 - 6,9	11,0	22,0	1.450	DN 100
CSPH 15	20-240	23,7 - 7,4	15,0	28,6	1.445	DN 100

^{*}The CSP 7.5/50 Hz has the same hydraulic values as the CSP 5.5 (but with larger cutting reserves).



MAGNUM LP / LE

HORIZONTAL AND VERTICAL STIRRING NOZZLE ADJUSTMENT ENSURES PERFECTLY HOMOGENISED SLURRY

The transport of liquid mediums is an essential factor on farms as well as in the industry for the functioning of the whole system:

- Efficiency;
- + Feeding of separators;
- + High recognition value;
- + Various drive options;
- + Maintanance friendly.
- 01 Leakage sensor Sturdy, permanently- lubricated angle gearing;
- 02 Hot-dip galvanized pump trolley for transporting the pump with the tractor including a sturdy rope winch, for turning the pump and lowering as well as lifting it into and out of the pit.

BAUER PUMPS



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TYPICAL APPLICATIONS:

- + Pumping*
- Tanker filling
- + Rinsing and cleaning
- + Transfer between pits
- * Due to the higher driving power available, MAGNUM LP 55 is suited particularly for heavy-duty stirring performance and pumping of thick sludge with a higher solids content.

HYDRAULIC LIFTING FRAME

The hydraulic lifting frame with two hydraulic cylinders and control valves enables a more comfortable handling of the pump. It makes it much easier to tilt, lower and lift the pump into the pit.

 Construction length 2 – 5 m, with graduations of 0.5 m;

+ Minimum pit opening 60 x 80 cm;

 All LE and LP pumps are available without, with one or with two stirring nozzles.

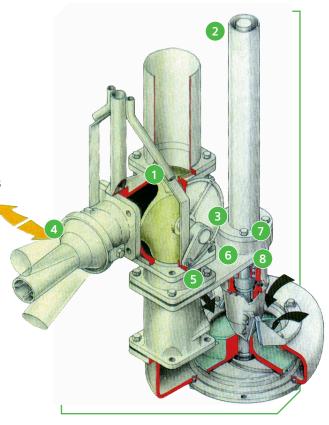


MAGNUM LP 55 in operation



Permanently installed LE model used for transfer

- 01 The cast iron three-way cock can be switched to stirring or pumping even under pressure;
- 02 The drive shaft running in oil bath has multiple bearings and seals and an exchangeable stainless steel bush;
- 03 Double pump-shaft bearing absorbs heavy shocks;
- 04 The mixing nozzle can be turned through 220° horizontally as well as 30° down and 15° up in vertical direction;
- 05 Open slurry impeller designed particularly for thick slurries;
- Of The robust hyperbolic cutter chops up stringy material with effortless ease and prevents it from winding around and blocking up the system. The high-quality tool-steel cutters are readjustable, their cutting edges can be used fourfold;
- 07 Pump housing of special cast iron with large 160 mm dia. intake;
- 08 Top intake ensure that no heavy foreign objects and stones are sucked in by the pump. This avoids clogging when the pump is immersed in the floating crusts.





EASY TO HANDLE

Trolley hooked up to the tractor's 3-point linkage with effortless ease.



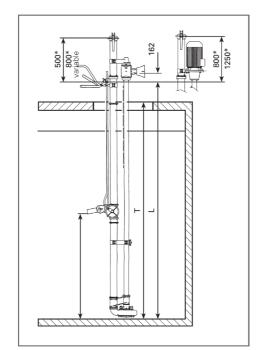
STIRRING NOZZLE WITH LARGE SWIVEL RANGE

Offers enormous stirring performance. Breaks up even extremely thick and viscous floating crusts in no time. The pump chops up all solids and stringy materials and mixes them to a homogenous pulp.

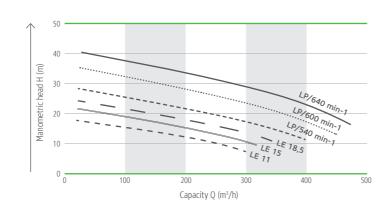








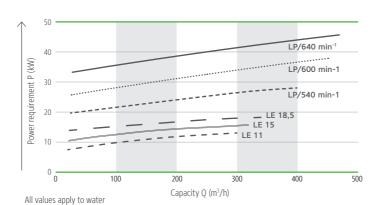
*) Connector HK 133, optional length mm



TECHNICAL DATA MAGNUM LP/ LE

Model	Pit depth T* m	Lenght L m
2,0	2,30	2,73
2,5	2,80	3,23
3,0	3,30	3,73
3,5	3,80	4,23
4,0	4,30	4,73
4,5	4,80	5,23
5,0	5,30	5,73

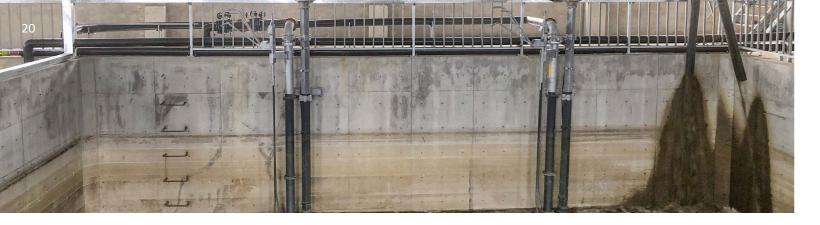
^{*)} inkl. pit cover



Model	Driving power Tractor kW	Driving power Electric kW	Driving speed rpm	Capacity m³/h	Head m
MAGNUM LP 55	40	-	540	40-360	28,5-15
MAGNUM LE 11	-	11,0	1.500	40-240	17-11
MAGNUM LE 15	-	15,0	1.500	40-270	20-12
MAGNUM LE 18,5	-	18,5	1.500	40-300	22-13







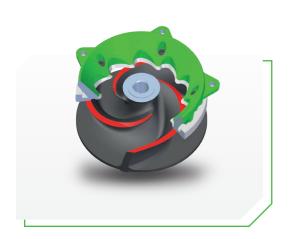
MAGNUM LEE / LEC

The long shaft pump is utilised for the extracting and homogenising of slurry and waste water. The special characteristic of this design is that the pump's hydraulic components are submerged in the medium but the electric motor is outside of the medium. The motor is also connected to the hydraulic components with a control shaft of varying lengths to match the depth of the pit.

The advantage of this pumping system is that the components that are not submerged in the medium do not need to be sealed and can therefore not be damaged. High quality materials, combined with hydraulic and optimal stabilising geometry ultimately result in a long-lasting, robust and energy efficient thick matter pump.

HARDENED DUCTILE IRON CUTTERS

As a result of extensive thick matter tests, the cutter efficiency was optimised and wear resistance greatly increased through the use of hardened materials. To guarantee this, ductile iron is used to give particular properties as a result of special heat treatment to ensure it can cope with the toughest conditions.



TOP INTAKE PREVENTS FOREIGN OBJECTS BEING SUCKED INTO THE PUMP

Top intake means that the extracted medium is driven up the shaft. The advantage of this set-up is that heavy objects such as stones or similar material do not reach the cutters.

PIPE PRESSURE IN 6 INCH MEASUREMENTS

The long shaft pump has a 6 inch pressure pipe to reduce friction losses in the pipe.

STATIONARY OR MOBILE

The long shaft pump can be placed in the pit for stationary usage with the aid of wall fixtures or fixtures on the edge of the pit. If the pump is used in various pits, the long shaft pump is available assembled on a robust lifting frame.

ZINC COATED OR STAINLESS STEEL FINISH

For use in the agricultural sector, the long shaft pump is finished with a zinc coating while a stainless steel version is available.

Performance Class

11 kW	15 kW	18,5 kW	22 kW
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ROBUST BEARINGS FOR THE TOUGHEST APPLICATIONS

The main component of the long shaft pump is the pump mechanism that has an incredibly robust bearings running in oil. The three-sided sealant provides a high level of protection from oil and slurry penetrating the storage unit.



THREE-WAY SWITCHABLE COCK

With the help of the three-way cock, effortlessly switching between extracting and stirring while operating the pump is possible.

HIGHLY FLEXIBLE NOZZLE

A nozzle was developed especially for application in round or right angled pits that can be swivelled horizontally up to 180°. In addition, this nozzle can be swivelled 15° upwards or downwards.



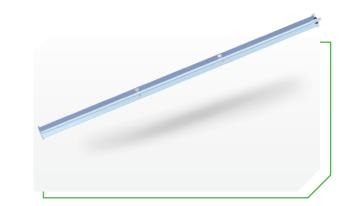
HYDRAULICALLY OPTIMISED THICK MATTER IMPELLER

Through the use of modern simulation programmes as well as intensive hydraulic measurements and optimisations, an efficient geometry could be developed that results in a high hydraulic effectiveness.



ROBUST, DRIVE SHAFT WITH MULTIPLE BEARINGS

The control shaft has a drive shaft with a massive shaped pipe $120 \times 120 \times 4$ mm supported several times by specially developed bearings that leads to an energy efficient, smoothly operated and robust control shaft. The long shaft pump is available for pits of two to six metres deep in 0.5 metre increment







TECHNICAL DATA

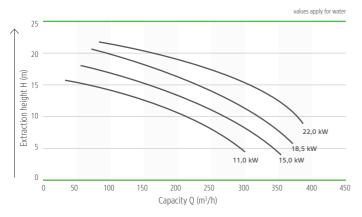
MAGNUM LEE / LEC	max. operational performance* [kW]	Operating rotations* [min ⁻¹]	Extraction flow* [m³/h]	Extraction flow* [I/min]	Extraction height* [m]
11,0	9,0 - 11,0	1475	40 - 300	667 - 5000	15,0 - 4,0
15,0	11,0 - 15,0	1475	55 – 350	917 – 5833	18,0 - 5,0
18,5	12,0 - 18,5	1475	70 – 370	1167 — 6167	20,0 - 6,0
22,0	13,0 - 22,0	1475	80 – 400	1333 — 6667	22,0 - 7,0

^{*} All values apply for water

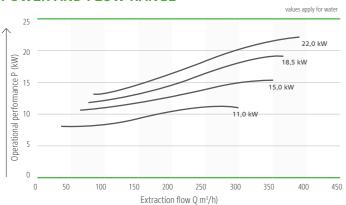
MAGNUM LEE / LEC	Model Pit depth including. cover (GT) [m] max. fluid level height (FS) [m]	2,0 2,3 2,0	2,5 2,8 2,5	3,0 3,3 3,0	3,5 3,8 3,5	4,0 4,3 4,0	4,5 4,8 4,5	5,0 5,3 5,0	5,5 5,8 5,5	6,0 6,3 6,0
	Pit cover - motor flange [m] approx.	0,99	0,84	0,99	0,84	0,99	0,84	0,85	0,69	0,85
Nozzle quantity 0	Pit cover - pressure port curve [m] approx.	0,37	0,37	0,37	0,37	0,37	0,37	0,37	0,37	0,37
	Pit cover - pressure port straight [m] approx.	0,52	0,52	0,52	0,52	0,52	0,52	0,52	0,52	0,52
	Pit cover - motor flange [m] approx.	0,99	0,84	0,99	0,84	0,99	0,84	0,85	0,69	0,85
Nozzle quantity 1*	Pit cover - pressure port curve [m] approx.	0,48	0,48	0,48	0,48	0,48	0,48	0,48	0,48	0,48
	Pit cover - pressure port straight [m] approx.	0,63	0,63	0,63	0,63	0,63	0,63	0,63	0,63	0,63
Nozzle quantity 2**	Pit cover - motor flange [m] approx.	N/A			0,99	0,84	0,85	0,69	0,85	
	Pit cover - pressure port curve [m] approx.	N/A				0,39				
	Pit cover - pressure port straight [m] approx. N/A				0,52					

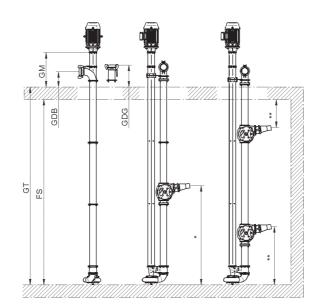
^{*} Nozzle approx. in the middle of the max. fluid level height;

PRESSURE AND FLOW RANGE



POWER AND FLOW RANGE





PRODUCTS FROM OUR SLURRY PROGRAM













SEPARATOR PLUG & PLAY

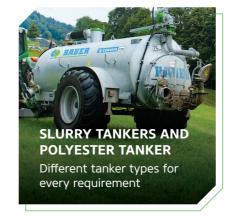
System for portable

slurry separation

















^{**} Top nozzle approx. 0.69m beneath the max. fluid level height, the lower nozzle approx. 1.40m above ground level



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