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SuperBetsy Independent pump system

Your application – Our pump system



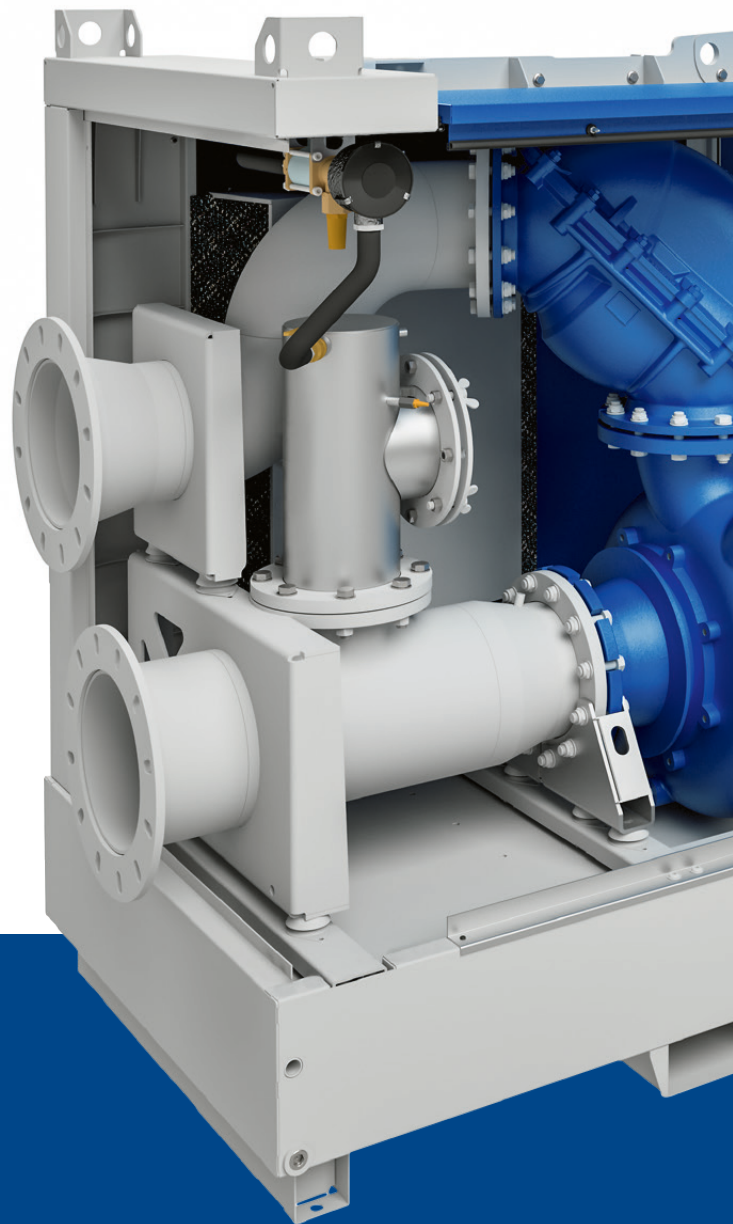
SuperBetsy – Independent pump system

Quality, Knowledge and Innovation is what the mobile pump system SuperBetsy stands for. By concentrating on engineering, assembling and quality assurance we are able to produce our products at our production site at the highest technical and quality levels. In conjunction with regional suppliers enabling short delivery times we succeed in providing our customers with the best solutions for their applications in record time.

Hidrostal Screw Centrifugal Impeller – a versatile all-rounder

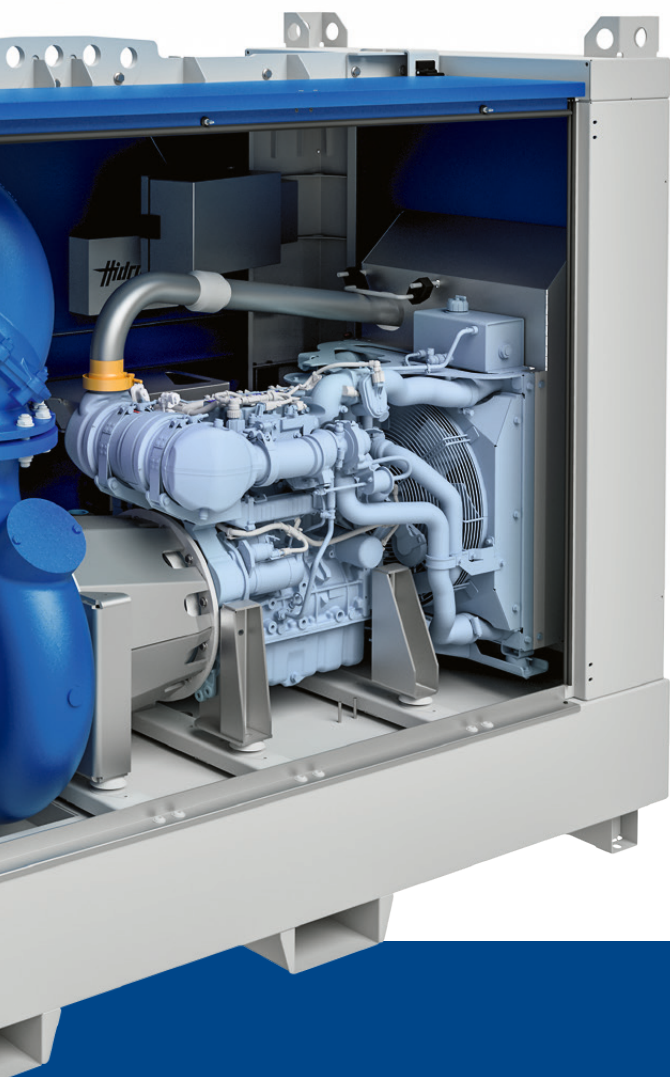
Large solids, fibrous media, viscous or problematic fluids such as bentonite and raw sewage, are no problem for the Hidrostal pump. The **clog free** original screw centrifugal impeller with free passage of **75 mm to 120 mm** guarantees an almost undisturbed operation. The excellent NPSH-values in combination with high efficiency, provide an extremely efficient use. Through the special construction of the screw centrifugal impeller, **gentle handling** of sensitive contents in the media, such as fish and other small organisms present during surface water dewatering, are secured.

The excellent NPSH (Net Positive Suction Head) values, combined with a high efficiency, allow for extremely efficient operation. The special design of the screw centrifugal impeller enables a particularly gentle conveyance of sensitive components in the pumped medium, such as fish and other small organisms, during dewatering tasks in surface water bodies. This ensures their protection and well-being during the pumping process.



- Manufactured in Germany
- Developed by specialists
- Manufactured for specialists

SUPER BETSY



BetsyPrime – innovative vacuum system

In combination with a rotary vane vacuum pump and the newly designed vacuum chamber (as well as the use of different sensors), is the vacuum system, the **heart** of each SuperBetsy.

BetsyPrime stands for safe and reliable suction of the medium to be pumped. The built-in sensor technology shortens the operation time of the vacuum pump to a minimum and guarantees a long lifetime. **Contamination of the vacuum pump** with pumped medium is **prevented** by the innovative locking system which is electronic and mechanically controlled.

Product properties

- Powerful
- Low-maintenance
- Durable
- High efficiency
- Maximum clog resistance
- Minimal operating costs
- Latest control electronics
- Latest engine technology (EU-Stage V)
- Low total weight
- Ultra silent
- Fish-friendly
- Remotely monitorable
- Stackable
- Trailer capable

SuperBetsy – From Germany to the World

With a worldwide distribution network spread across all continents, we offer excellent service in advice, distribution and technical support. With individual sales branches serving their local markets our customers can be assured of our attention at all times.

Our proven specialists have excellent knowledge in the design of our machines and support our users with their individual requirements.

Development

From the design of the prototype to series production, this is how the development process of a SuperBetsy can be described.

Many years of experience of our own rental business enables us to develop ideas for even better, needs based, more effective machines. The close interlinking of practice, development and manufacturing under one roof, guarantees the fast realization of practical needs to our customers. We see special solutions as a challenge that we are happy to face. Experience dictates the requirements that our customers have for their machines and enables us to specifically develop solutions for it.



- State-of-the-art production facility
- Integrated development department
- Global sales network
- Satisfied customers





Manufacturing

Our modern production hall alongside qualified employees is the basis for production of our independent pump system, SuperBetsy. At several assembly sites the different components of the machine are prepared and assembled. With this we reduce the production times to a minimum and can guarantee short delivery times to our customers.

Quality

We set high quality requirements in our SuperBetsy pump system with regard to processing and durability. To ensure this claim we check all machines with a standardized test procedure before they leave our site.

In addition to the comprehensive functional test at the test pit integrated in our production hall, all SuperBetsy pump systems pass through an endurance test under real-life conditions.

This test procedure which is monitored by experienced engineers serves to ensure high quality and customer satisfaction.



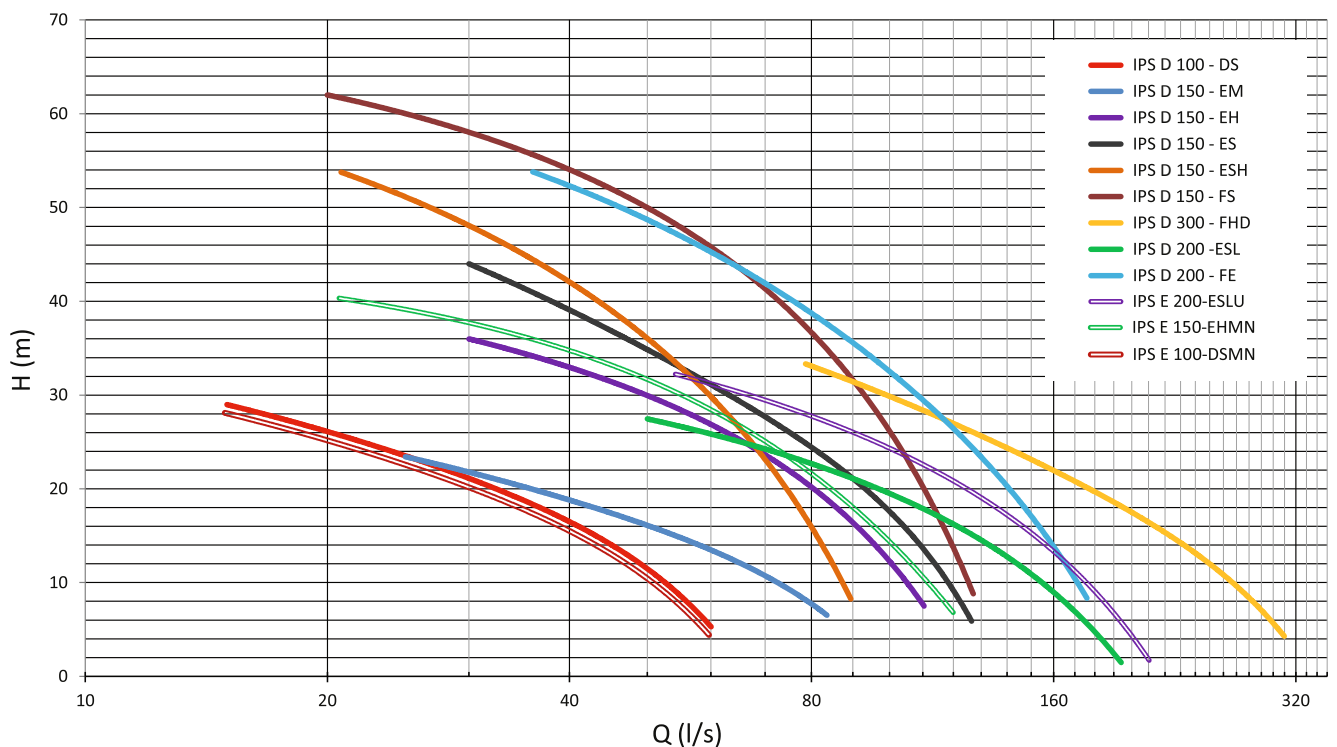
SuperBetsy – Product overview

The table showcases the model range of our powerful standalone SuperBetsy diesel and electric pump systems, including their key technical specifications.

Performance data SuperBetsy							
	Hmax	Qmax	Free ball passage	Motor type	Exhaust emission level	Power at 1500 rpm-1	Dimensions (lxwxh)
	[m]	[m³/h]	[mm]		[EU/EPA]	[kW]	[mm]
IPS D 100-DS	29	216	100	Hatz 3H50T	V/Tier 4 final	17	2418×1145×1776
IPS D 150-EM	23	302	100	Hatz 3H50T	V/Tier 4 final	17	2407×1145×1776
IPS D 150-ESH	54	324	75	Hatz 3H50TICD	V/Tier 4 final	29	2385×1145×1776
IPS D 150-EH	36	400	100	Hatz 3H50TICD	V/Tier 4 final	29	2407×1145×1776
IPS D 150-ES	44	450	90	Hatz 3H50TICD	V/Tier 4 final	29	2407×1145×1776
IPS D 150-FS	62	457	75	Hatz 4H50TICD	V/Tier 4 final	38	2446×1145×1910
IPS D 200-ESL	28	695	115	Hatz 3H50TICD	V/Tier 4 final	29	2387×1145×1910
IPS D 200-FE	54	634	90	Hatz 4H50TICD	V/Tier 4 final	38	2461×1145×1910
IPS D 300-FHD	33	1116	120	Deutz 2.9 TCD L4	V/Tier 4 final	46	2795×1225×2051
IPS E 100-DSMN	29	216	100	IE 3/160L4	-	15	2418×1145×1730
IPS E 150-EHMN	40.5	481	100	IE 3/200L4	-	30	2416×1145×1730
IPS E 200-ESLU	32	760	100	IE 3/225M4	-	45	2398×1145×1730

The following Q-H-Diagram shows the **effective System** curves of the SuperBetsy model range.

The pressure losses occurring between suction- and discharge pipe are considered. It will be pictured the **real curve**.



SuperBetsy Q-H-Diagram, effective performance curve under full load

Product highlights



SuperBetsy pump system
with dimension lines



- Hidrostat hydraulics with original screw centrifugal impeller
- Excellent pump efficiency
- Max solids passage (75 – 120 mm)
- Large suction height (up to 8.5 m)
- Very high flow rates and discharge heights
- Flow optimized suction and pressure pipes
- Newly developed vacuum system BetsyPrime
- Completely new canopy concept (without middle traverse)

- SuperBetsy App (for easy parameterization)
- Fuel tank made of special plastic with a large volume as standard
- Latest engine technology according to latest emission regulations (EU and US EPA standard)
- Also available with a three-phase asynchronous motor according to the latest energy efficiency class
- Low sound emission
- Latest control electronics
- Remote monitoring via GPS / GSM
- Manual and automatic operation mode
- Vibration monitoring of the bearing frame pump (option)
- Suction and pressure line with universal flange for connecting DIN and ANSI flange connections

SuperBetsy – Product overview

Description	IPS D 100-DS	IPS D 150-EM	IPS D 150-EH	IPS D 150-ES	IPS D 150-ESH	IPS D 150-FS
Hydraulics	D04R-SMN3R	E125-M03R	E125-H03R	E125-S03R	E125-SH3R	F04K-S03R
Flow rate max. [m³/h]	216	302	400	450	324	457
Discharge head max. [m]	29	23	36	44	54	62
Free ball passage [mm]	100	100	100	90	75	75
Maximum suction height [m]	8.5	8.5	8.5	8.5	8.5	8.5
Material impeller	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Material wear liner	Hidrohard	Hidrohard	Hidrohard	Hidrohard	Hidrohard	Hidrohard
Pipe connections						
Suction flange [DN]	150	200	200	200	200	250
Discharge flange [DN]	100	150	150	150	150	150
Nominal pressure stage [PN]	10	10	10	10	10	10
Flange connection	universal (DIN/ANSI)	universal (DIN/ANSI)	universal (DIN/ANSI)	universal (DIN/ANSI)	universal (DIN/ANSI)	universal (DIN/ANSI)
Vacuum pump						
Type	Rotary vane	Rotary vane	Rotary vane	Rotary vane	Rotary vane	Rotary vane
Nominal pumping speed [m³/h]	50	50	50	50	50	50
Engine	Hatz	Hatz	Hatz	Hatz	Hatz	Hatz
Type	3H50T	3H50T	3H50TICD	3H50TICD	3H50TICD	4H50TICD
Emission level [EU/EPA]	V/Tier 4 final	V/Tier 4 final	V/Tier 4 final	V/Tier 4 final	V/Tier 4 final	V/Tier 4 final
Maximum power [kW]	18.4	18.4	43.7	43.7	43.7	55.4
Power at 1500 rpm [kW]	17	17	29	29	29	38
Capacity fuel tank [l]	400	400	400	400	400	400
Operating time at 1500 rpm at BEP [h]	129	78	70	61	93	42
Control	Deep Sea, Electronics	Deep Sea, Electronics	Deep Sea, Electronics	Deep Sea, Electronics	Deep Sea, Electronics	Deep Sea, Electronics
Type	E800	E800	E800	E800	E800	E800
Display	3.4" LCD Display (backlit)	3.4" LCD Display (backlit)	3.4" LCD Display (backlit)	3.4" LCD Display (backlit)	3.4" LCD Display (backlit)	3.4" LCD Display (backlit)
Operating mode	Manual/Automatic	Manual/Automatic	Manual/Automatic	Manual/Automatic	Manual/Automatic	Manual/Automatic
Speed control	Electronically	Electronically	Electronically	Electronically	Electronically	Electronically
Noise level						
Sound pressure level Lp @ 7 m (at maximum speed) [dB (A)]	58	62	66	67	67	66
Canopy						
Global dimensions (lxbxh) [mm]	2418×1145×1776	2407×1145×1776	2407×1145×1776	2407×1145×1776	2385×1145×1776	2446×1145×1910
Weight with fuel [kg]	1550	1715	1790	1790	1775	1900
Forklift slots (s) (Center - Center) [mm]	900	900	900	900	900	900
Lifting point	central crane eye	central crane eye	central crane eye	central crane eye	central crane eye	central crane eye
Stackability	Yes	Yes	Yes	Yes	Yes	Yes

IPS D 200-ESL	IPS D 200-FE	IPS D 300-FHD	IPS E 100-DSMN	IPS E 150-EHMN	IPS E 200-ESLU
E08R-SLU3R	F06K-EMN3R	F10K-HD3R	D04R-SMN3R	E06R-HMN3R	E08R-SLU3R
695	634	1116	216	481	760
28	54	33	29	40.5	32
100	115	120	100	100	100
8.5	8.5	8.5	8.5	8.5	8.5
Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Hidrohard	Hidrohard	Hidrohard	Hidrohard	Hidrohard	Hidrohard

250	250	300	150	200	250
200	200	300	100	150	200
10	10	10	10	10	10
universal (DIN/ANSI)	universal (DIN/ANSI)	universal (DIN/ANSI)	universal (DIN/ANSI)	universal (DIN/ANSI)	universal (DIN/ANSI)

Rotary vane	Rotary vane	Rotary vane	Rotary vane	Rotary vane	Rotary vane
50	50	50	48	48	48

Hatz	Hatz	Deutz	Three-phase asynchronous motor	Three-phase asynchronous motor	Three-phase asynchronous motor
3H50TICD	4H50TICD	2.9 TCD L4	IE 3 /160L4	IE 3 /200L4	IE 3/225M4
V/Tier 4 final	V/Tier 4 final	V/Tier 4 final	-	-	-
43.7	55.4	55.4	15	30	45
29	38	46	15	30	45
400	400	460	-	-	-
52	35	39	-	-	-

Deep Sea, Electronics	Deep Sea, Electronics	Deep Sea, Electronics	Deep Sea, Electronics	Deep Sea, Electronics	Deep Sea, Electronics
E800	E800	E800	E800	E800	E800
3.4" LCD Display (backlit)	3.4" LCD Display (backlit)	3.4" LCD Display (backlit)	3.4" LCD Display (backlit)	3.4" LCD Display (backlit)	3.4" LCD Display (backlit)
Manual/Automatic	Manual/Automatic	Manual/Automatic	Manual/Automatic	Manual/Automatic	Manual/Automatic
Electronically	Electronically	Electronically	Electronically (frequency converter)	Electronically (frequency converter)	Electronically (frequency converter)

67	66	66	55	57	56
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2387×1145×1910	2461×1145×1910	2795×1225×2051	2418×1145×1730	2418×1145×1730	2398×1145×1730
1900	2005	2565	1140	1425	1660
900	900	900	900	900	900
central crane eye	central crane eye	central crane eye	central crane eye	central crane eye	central crane eye
Yes	Yes	Yes	Yes	Yes	Yes

SuperBetsy – Equipment features

Our newly developed mobile pump system SuperBetsy can be used for the most demanding applications, characterized not only by their robustness and power but above all through their numerous innovations. Our machines are equipped with the following components straight from the factory:

Equipment features

- Sound proof canopy (RAL 5010)
- Flow optimized suction- and pressure pipes
- Hydraulics in wear-resistance execution
- Diesel engine according to latest emission regulations
- Polyethylene fuel tank with above-average volume
- Oil quick change system for engine, hydraulics and vacuum pump
- Vacuum system BetsyPrime
- Vacuum pump 50 m³/h
- Digital control panel
- Electronic fuel sender
- Replacement v-belt (pre-mounted)
- Hand diaphragm pump for dewatering of leakage pan and hydraulics
- Electrode set for level monitoring in automatic mode
- Pressure sensor for level monitoring in automatic mode (electric)
- Powerful starter battery

Options

- Changeover valve for connecting an external fuel tank
- Fuel tank in special size
- Auxiliary heating for use in cold areas
- Vibration sensor
- Canopy in special paint work
- Additional elements for level monitoring in automatic mode (pressure sensor for diesel)
- Extended warranty 2 or 4 years (see warranty terms of Hidrostal Pumpenbau GmbH)



Optional accessory packages



Sensor package

- GPS/GSM module and antenna (4G)
- Pressure sensors (suction-/discharge pipe)

Package operation safety

- Additives to protect the diesel engine (Diesel-flow-fit, Anti-bacterial-Diesel-additive)
- Battery master switch
- Battery charger (pre-mounted)



Package light

- LED periphery lighting for night use (removable mounted at canopy)
- LED interior lighting
- Reinforced battery



Package maintenance

- Filters (engine, vacuum pump, vacuum chamber)
- Oil (engine, vacuum pump)



Accessory

- Trailer (low loader tandem axle)
- Suction and pressure hoses
- Connection couplings (Perrot, Bauer, Anfor, ect.)
- Fittings



General information – Sources of supply

If we have aroused your interest in our products or you require further information, please contact your nearest Hidrostat branch or visit us on the Internet at hidrostat.com

We would be glad to advise you.

Hidrostal pumps

Make a quick and accurate pump selection:
hidrostal.com/pumpselector.php



Hidrostal pumps are used in numerous branches and industries due to their excellent pumping characteristics. They convey a wide variety of liquids and materials with low pulsation and gentle handling. Our specialists select the suitable material combinations and adapt each pump individually to the conditions on site. This approach ensures that Hidrostal pumps prove their worth even in difficult applications and thus achieve the best results in terms of efficiency, energy efficiency and low life cycle costs.

- non-clogging delivery
- high suction capacity
- gentle conveying due to low shear forces
- high efficiency
- stable characteristic curve
- long service life
- low pulsation
- continuous, speed proportional conveying
- high pressure stability



Wastewater



Construction



Industry



Food



info@hidrostal.com
www.hidrostal.com

Hidrostal
Pioneers in Pump Technology