

DND LSA 2HF

Comprehensive solutions for mining applications



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The competitive advantages of DnD includes an engine with customizable aspects, capability in absorbing variety of engines such as utilizing Volvo as well as Caterpillar. The material used for the impeller, casing, suction liner and high chrome steel (28-29%) is produced by the proprietary right of GIW® Minerals (ASTM A532 class III). Additionally, the materials characteristic is superior against abrasion and resisting acidic conditions.



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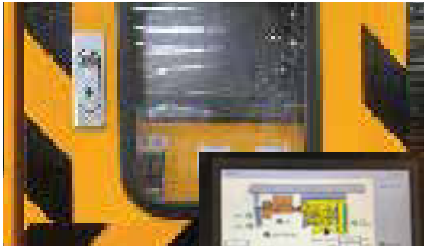
After years of intensive research, KSB established innovative design of Dewatering and Dredge Pumpsets (DnD), comprehensive solution for mining applications. The pumpset is acknowledged for its outstanding capacity to lead in severe open-pit mine sites with capability in managing aggressive mine water through slurry conditions, that why it is known as Dewatering and Dredge Pumpsets (DnD). The majority of Indonesian mine sites are categorized as open-pit mine sites, in regard to its topography condition.

Consequently, DnD is suitable for the disposal of solid waste from exhausted mines that are converted to landfills. It functions as a form of water control to prevent the mine pit from becoming a lake. During this phase, the DnD transforms from being a supporting equipment to vital equipment. Our DnD Pumpsets have been already certified for Local Value Addition (TKDN/Tingkat Komponen Dalam Negeri) up to 40.96%.

KSB Indonesia has produced more than 609 units of Dewatering and Dredge Pumpsets (DnD) used in open-pit mines in the past 15 years. Our DnD pumpsets include several models ranging from high to low heights. Starting from DnD 100, DnD 150 & DnD 200 for low head application (H below than 130 m). DnD 150 MHX, DnD 200 MHX & DnD 250 MHX for medium head application (H between 130 ~ 160 m). DnD LSA 2H & DnD LSA 2HF for high head application (H between 160 ~ 200 m).



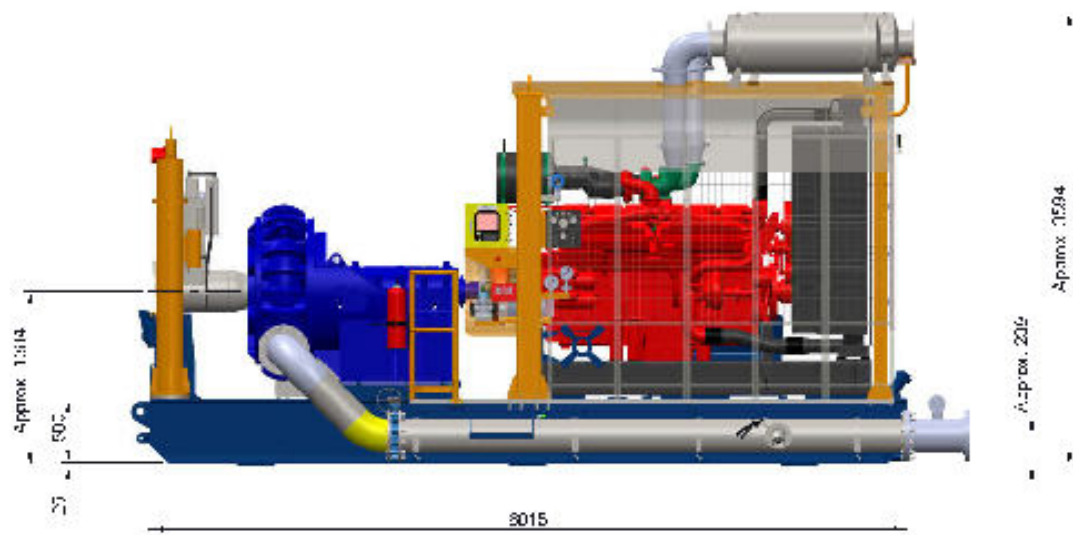
Features

Pump LSA 8x10 	Description: Robust, proven, high-efficiency pump for high heads with pump components made of abrasion-resistant white cast iron.	Specification: • Heavy construction, 33 bar pressure rating • High chrome white iron wet end materials (HARDNESS 600 HBN / 56 HRC) • 45 x 130 mm solid free passage • 8 x 10 inch pump size • Oil lubrication
Flexible coupling 	Description: Flexible shaft couplings designed to transmit torque while accommodating misalignment, shock loads, and vibration. commonly used in industrial applications, including pumps, conveyors, compressors, and other rotating equipment.	Specification: • Type = Elastomeric coupling • Speed = 2000 rpm Misalignment: • Parallel = 3.2 mm • Angular = 2°
Synchronous control panel 	Description: Designed to efficiently manage and optimize the operation of multiple pumps running in parallel. It ensures synchronized operation, load balancing, and protection against faults, making it ideal for demanding applications such as mining, dredging, and large-scale dewatering.	Specification: • To synchronized the both engines load Integrated with engine protections
Oil lubrication system 	Description: Provide continuous lubrication to rotating and moving parts.	Specification: • Type = Oil circulation with external cooling • Capacity = 1 liter per minute • Driver = 24 Volt DC • Oil capacity = 20 liter
Priming Vacuum Pump 	Description: High-performance rotary vacuum pump, durability, oil-free operation, and efficient performance, making it suitable for dewatering, dredging.	Specification: • Type = lubricated vane with DC motor • Capacity = 30 m³/hr • Driver = 24 Volt DC • Connection = Flexible coupling • Mount = Base frame

Priming Vacuum Tank 	Description: Designed for efficient air-water separation in vacuum-assisted dewatering and dredging applications.	Spesification: • Increase the volume (to stabilize the floating valve) • Improve reliability (avoid the crack on structure/welding)
Flow meter 	Description: Ensuring accurate monitoring and control of fluid movement.	Spesification: • Type = Electromagnetic • Pressure = 20 bar • Protection = IP65 • Accuracy = $\pm 0,5\%$ Material: • Body = Cast Iron • Liner = Polyurethane • Probe = Titanium
Bearing temperature 	Description: Ensures smooth operation and reduces friction, Minimizes stress on bearings, helps detect early warning signs.	Spesification: • Type = Resistance Bulb PT100 (3 Wire) • Range = up to 150 °C • Power supply = 24 VDC • Protection = IP 67 Material: • Terminal head = Aluminium • Tube = SS316
Tilt sensor 	Description: Protects sensitive equipment from excessive tilting that can lead to operational failures. Compatible with SCADA, PLC, and IoT-based monitoring systems for remote tracking and automation.	Spesification: • Type = Dual-Axis Tilt Switch • Range = up to 4 ° • Power supply = 24 VDC • Protection = IP 67 Feature: • Zero button to set zero after installation

Water level sensor 	Description: Protects pumps, tanks, and pipelines by detecting low or high water levels.	Specification: • Type = Turning Fork • Power supply = 12 - 55 VDC • Protection = IP 67 • Pressure = Max. 40 bar Material: • Housing = SS304 • Fork = SS316
Suction line 	Description: Efficient fluid flow, preventing cavitation, and maintaining optimal pump performance in dewatering, dredging.	Specification: • Suction hose Rubber hose with flange ANSI CL150, 5 meter length • Suction strainer Fabricated stainless steel strainer. • Suction vacuum tank Fabricated stainless steel tank with floating valve.
Discharge line 	Description: Efficient fluid transport, maintaining pressure, and ensuring smooth operation in dewatering, dredging.	Specification: • Piping Fabricated stainless steel material • Check valve Swing type, stainless steel material • Duty & drain valve Butterfly type with gear/lever actuator • Flow meter Electromagnetic type.

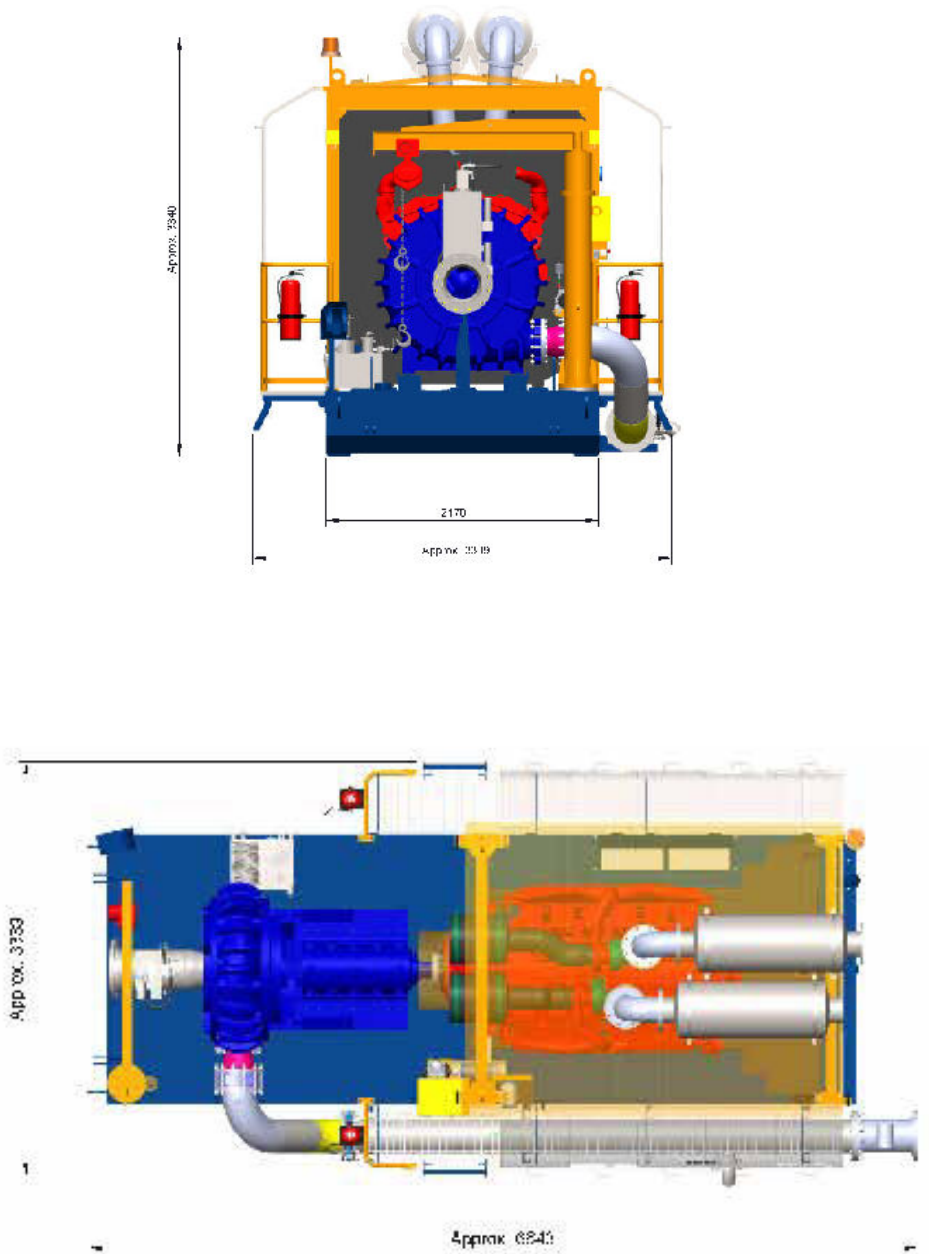
General drawing



Spesification

Pump type	DnD LSA 2H
Pump size	8 x 10
Free passage	45 x 130
Material	Super duplex stainless steels

General drawing

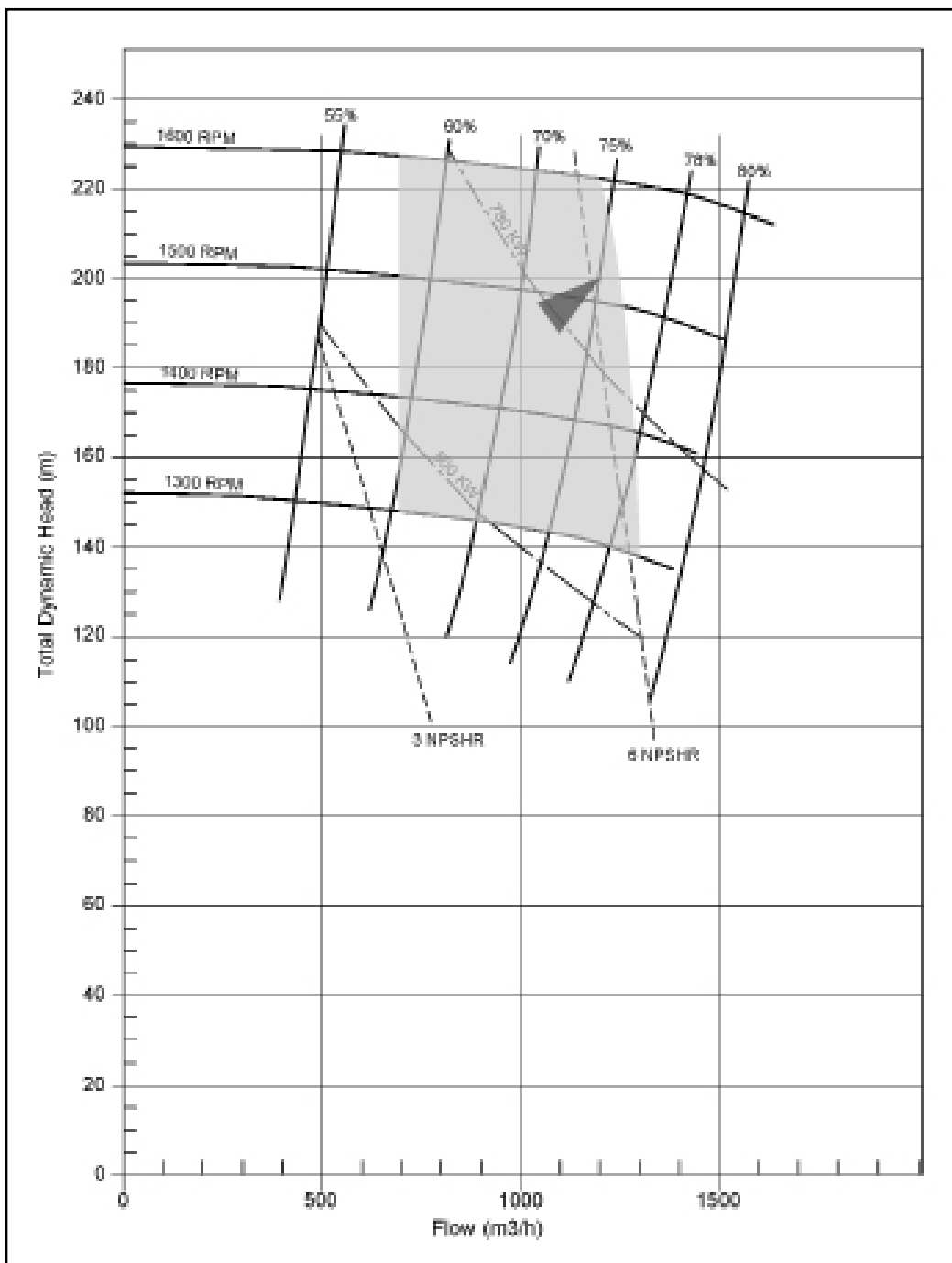


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Clear water performance

Curve is valid for clear water only. The effects of specific gravity, viscosity and solids on performance with slurry must be accounted for. Alternate choice for frame size or seal type may also have some effects.



**Max. flow up to
1300 m³/hr**

**Max. head up to
220 mTDH**

LSA 2HF with
Engine Cummins
K38-P1400

Q = 1200 m³/hr
H = 200 mTDH
n = 1550 rpm
Pabs = 900 kW

Contact Us

Head office factory & workshop

Jl. Timor Block
D2-1 MM2100
Industrial Town
Cibitung Bekasi 17520, West Java
Telp: +62 21 8998 3570
Fax: +62 21 8998 3571

Sales & Marketing Office

Secure Building, Block A,
1st Floor, Jl. Raya Protokol
Halim Perdanakusuma,
Jakarta 13610 Indonesia
Telp: +62 21 8088 6509
Fax: +62 21 8088 6504

Surabaya

Jl. Berbek Industri V No.8A,
Berbek. Kec. Waru
Kabupaten Sidoarjo
East Java
Telp: +62 811-9539-707

Balikpapan

Jl. Mulawarman No. 5
RT 023 Kel. Manggar
Balikpapan Timur 76116
East Kalimantan
Telp: +62 542 771 719
Fax: +62 542 771 730

Semarang

Genius Idea @SIM Square,
Private Office R.17, M Floor, SIM
Square, Jl. KH Ahmad Dahlan,
Pekunden, Semarang Tengah,
Kota Semarang 50131
Central Java
Telp. +62 811 2567 770

Banjarmasin

Ruko I-WALK II Citraland No. 25
Kel. Manarap Lama
Kec. Kertak Hanyar Kab. Banjar
South Kalimantan
Telp: +62 511 5210057
Fax: +62 511 4770 236

Palembang

Komplek Citra Grand City, Orchard
Park, Blok B7, Talang Klp., Kec.
Alang-Alang Lebar, Palembang City
South Sumatera
Telp: +62 813-6851-5454

Sangatta

Jl. Soekarno-Hatta RT 25
Singa Gembara, Sangatta Utara,
Kutai Timur
East Kalimantan
Telp: +62 853 4540 1904

KSB Indonesia

Head office, Cibitung. Telp: 021 89983570 Sales &
Marketing Office, Jakarta.Telp: 021 80886509 E-mail:
ksbsales@ksb.com www.ksb.com/en-id