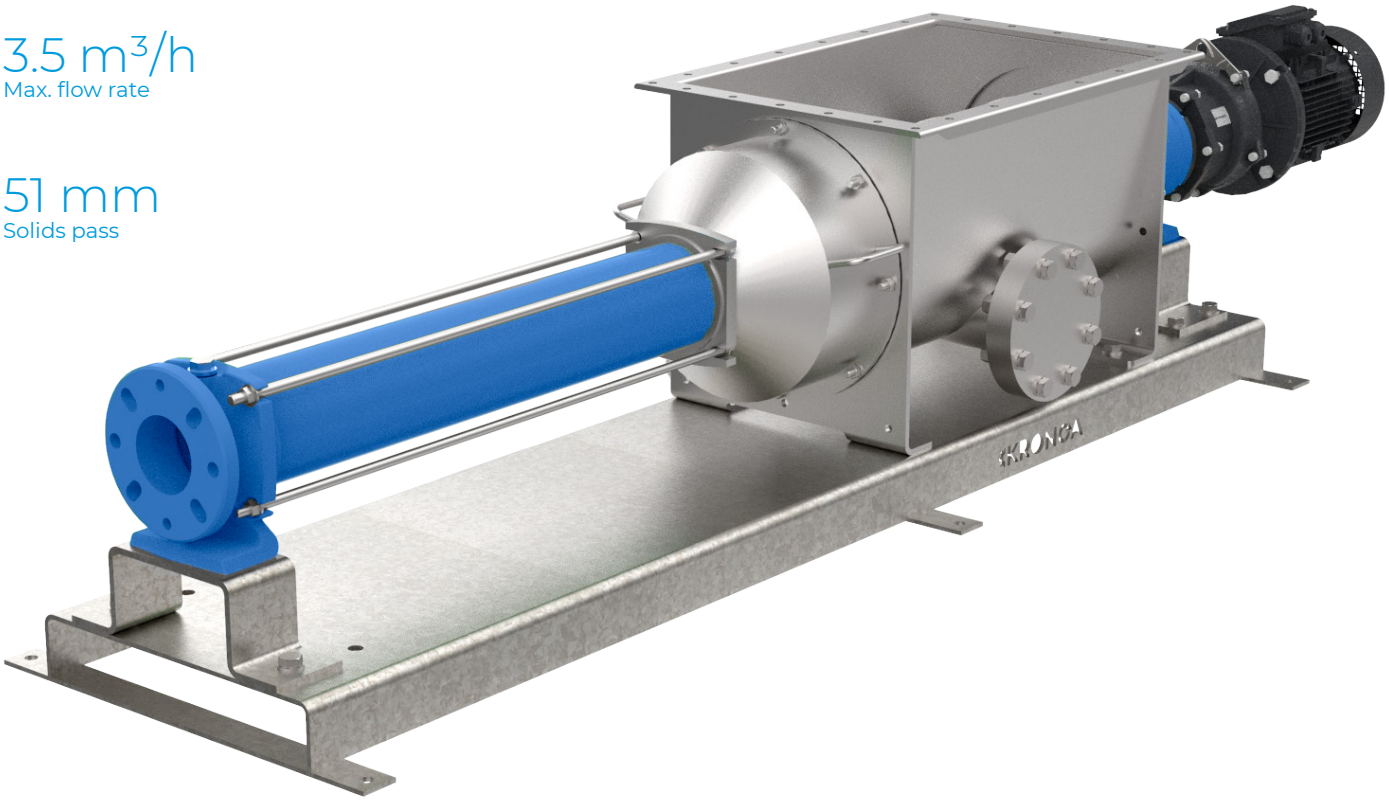
PREMIUM LINE
H30 64-24

TORO
robust pumping power

24 BAR
Max. pressure

3.5 m^3/h
Max. flow rate

51 mm
Solids pass



Hydraulic, large solids pass, and wear resistance

Cardan transmission

Lubricated mechanical seal

Double ball bearings support

EDS system, easy and quick disassembly

IEC Standardized drive

Helical pumps with a hopper and a forced feeding screw used in applications where high consistency dry liquids are present.

An entirely modular design with an eas disassembly system and an IEC fully standardized drive.

The Premium series stands out for its rugged mechanics, which makes it ideal for the most demanding and complex applications, containing abrasive fluids, high viscosity fluids, dewatered sludge with high dryness percentage, co-substrates, and industrial wastes such as pulp or dense paste.

Technical specifications

Structural design and finishes

Process: Horizontal. Force feeding hopper
Design: Compact design with a robust double ball bearings support
Drive system: Needle bearing cardan joint lubricated in grease
Sealing system: Mechanical seal lubricated in oil. Maximum temperature 150°C. Maximum pressure 23 bar
Suction connection: Open hopper 400x600 mm (optional: 400x1200mm)

Discharge connection: EN 1092 DN150 PN20 - ANSI 6" 150 LBS
Design, maximum pressure: 24 bar (4 stages)
Rotor geometry: "S" type, HWRD (highly resistant to abrasion)
Design, maximum temperature: 80°C
Feeding screw: large diameter with an 8-10mm thickness blade
Painting procedure: C3-M according to DIN EN ISO 12944-2 , saturated polyester powder coating. Layer thickness from 100 to 120µm. Green pump RAL 6018 / Gray drive RAL 7024

Drive system

Reducer

Reducer type: Helical gears drive
Connection to pump: Key
Reducer operation: B5 flange, IEC standardized design

Motor

Motor type: Electric TEFC, IEC standardized motor
Voltage: 220-400 V / 400-690 V, 50-60 Hz, IIIF
Efficiency: IE3 Premium
Insulation: F Class type
Protection: IP-55
Thermal protection: PTC 150°C thermistor

Construction materials

Stator: NBR
Cardan: Cast iron with parts in contact with the fluid, stainless steel. AISI 304

Transmission protection: Rubber sleeve protection with inner textile ply reinforcement in NBR / EPDM
Shaft drive: Stainless steel AISI 304

	STD	V2A	PLUS	FULL+
Rotor	1.0571 HCP AISI 1024 HCP	1.4301 HCP AISI 304 HCP	1.4301 HCP AISI 304 HCP	1.4571 HCP AISI 316 HCP
Mechanical seal	SiC/SiC/FPM Oil lubricated	SiC/SiC/FPM Oil lubricated	SiC/SiC/FPM Oil lubricated	SiC/SiC/FPM Oil lubricated
Housing	ST-235	ST-235	1.4301 AISI 304	1.4571 AISI 316
Feeding screw	ST-235	ST-235	ST-235	1.4571 AISI 316
Baseplate	ST-235	ST-235	ST-235	1.4301 AISI 304

Other combinations available on demand

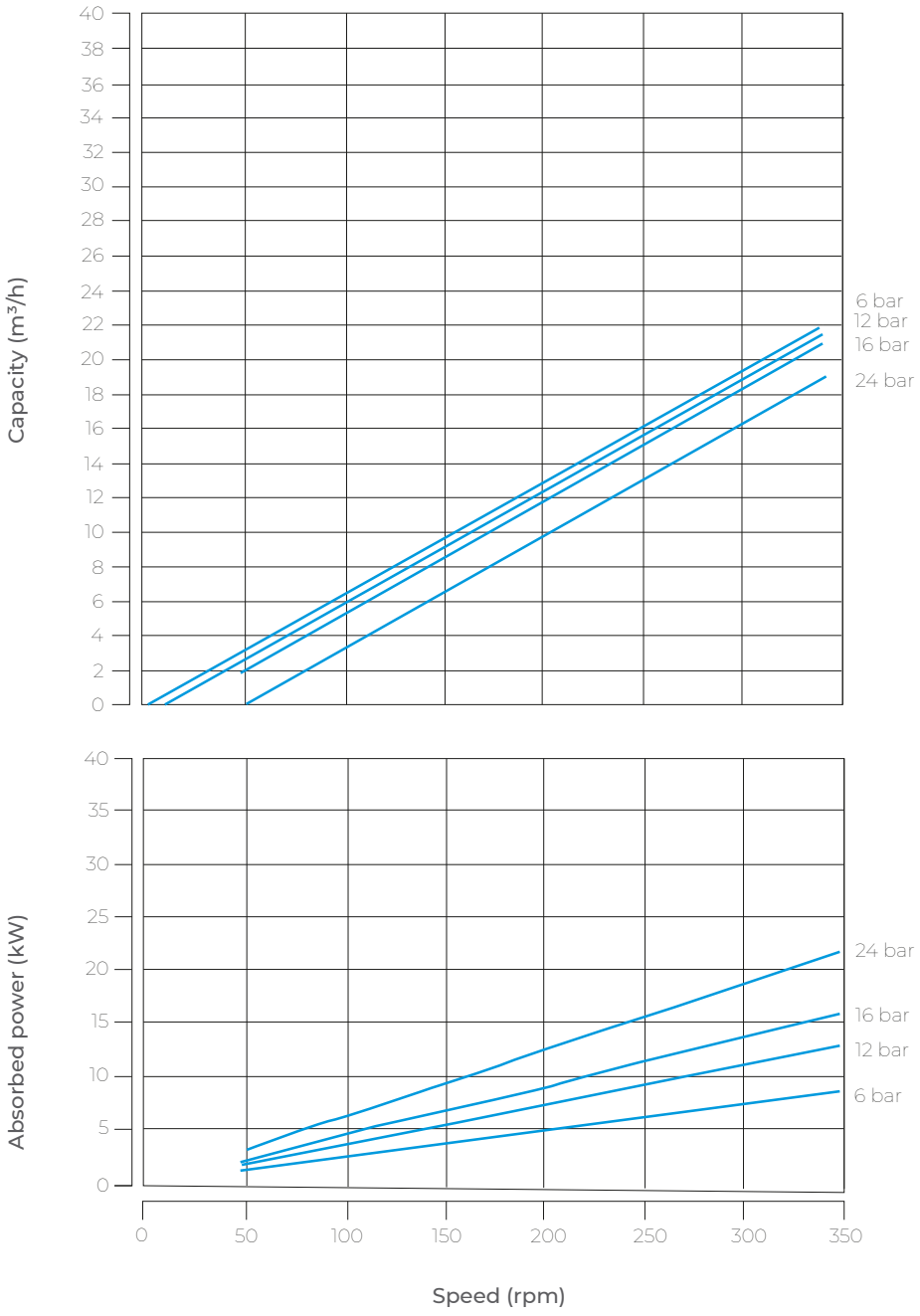
Technical chart

H30 64-24

Nominal Flow Rate (m3/h 50 Hz)	RPM (50 Hz)	Motor (kW)	Flow Rate Range (m3/h 20-65 Hz)	Absorbed power (kW)	Solids pass (mm)
2	36	4	0.8 to 2.6	2.8	51
3	56	7.5	1.1 to 3.5	4.7	51

Usual models. Consult availability for other flow rates different than shown.

Flow curve



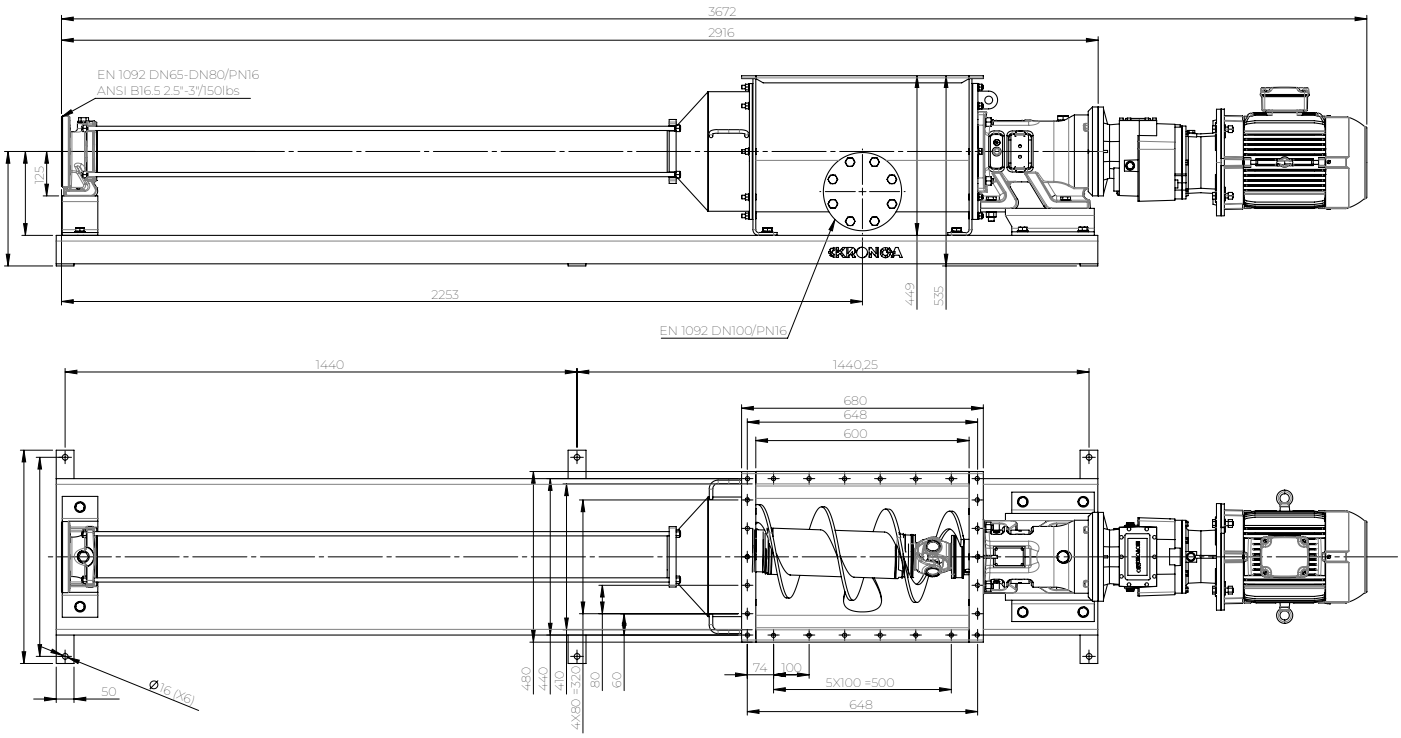
Values/figures measured with water at 20 °C

For information purposes only. Should you require exact flow rate figures, performance tests need to be carried out in our test bench.

The information on the product is subject to changes; please contact factory for further details. All images are for illustrative purposes only.

The actual product shown in this brochure may vary.

Dimensional technical drawing



Optional equipment

Frequency variators

Constant torque / Heavy load / overload at start-up: 150%, EMC filter included.
Inputs: 6 digital / 2 analogical
Outputs: 2 digital / 2 analogical
Bus RS485
Options:
>IP-20 for an electric board
>IP-66 for outdoors installation
>IP-67 Integrated motor casing

"Plug & Play" Electric Panel

Metal cabinet, working ,malfunctioning, and protection leds.
>Direct start-up option with thermal-magnetic circuit breaker, start / stop selector, pump protection in case of pump running dry
>Frequency converter option available, potentiometer, manual selector / stop / auto, digital and analogical input in automatic mode

Protection system in case of dry-running

PT100+ probe, temperature control display. Available with a digital output. 230 V, IP-65

Electronic pressure switch:

Pressure controller with a front-flush ceramic diaphragm. Range -1...25bar. Available with 2 configurable outputs. 24V, IP-67

Forced ventilation motor

Monophasic / Triphasic. To function at working frequencies lower than 20Hz

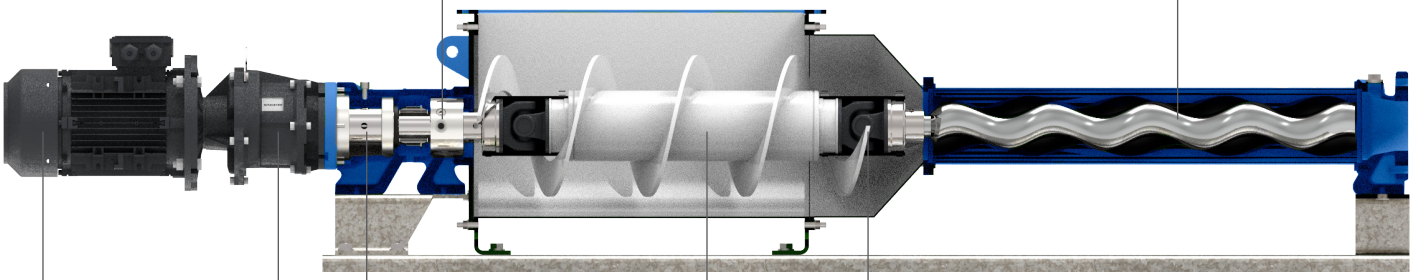
Premium Line Features

Examination and inspection ports with safety locking:
The Premium version comes with a DN100 PN16 lateral port on the hopper for easy drainage and cleaning. The shaft blocker enables maintenance tasks while ensuring the fixing of the shaft.

EDS, easy disassembly system:
If you need to disassemble the rotor and the feeding screw, it is not necessary to take apart the hopper. For that purpose, an easy and quick access on both sides of the hopper is available.

Cartridge lubricated in oil sealing system:
As common rule, the sealing system in the Premium Line is based on a mechanical seal lubricated in oil. The faces of the seal are bathed with a lubricant and clean fluid without springs, unlike traditional seals which are lubricated by the fluid being pumped.

Rotor and stator geometry featuring high efficiency and wear resistance
Our geometries allow large solids pass and are made of different rubber qualities. This, along with the fact that rotation speed is low is a contributing factor in the high efficiency and lifespan of the hydraulic set compared to other sets on the market.



Standardized drive:
Unlike other units on the market, our connection system between the pump and the reducer is by means of a key with an IEC standardized shaft.

Sturdy construction with bearings support:
During its operation axial and radial loads are generated and transmitted to the bearings in the reducer, causing fatigue and failure in the internal gears. To avoid all this, all our pumps come with a robust double bearings support which absorb the loads generated, thus protecting the reducer from failures due to overloads.

Cardan joint with needle bearings:
As a power transmission system, our units come with a cardan design with needle bearings lubricated in grease. It is a simple, robust system, free of periodic maintenance. An NBR sleeve, with a reinforced inner textile ply, is used for further protection.

Feeding screw enhanced design:
The robust design of the feeding screw featuring a large diameter and significant thick and high blades ensure the thrust of the product into the inlet cone of the hydraulic set.

Contact Us

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Manufactured in Barcelona I Powered by Kronoa