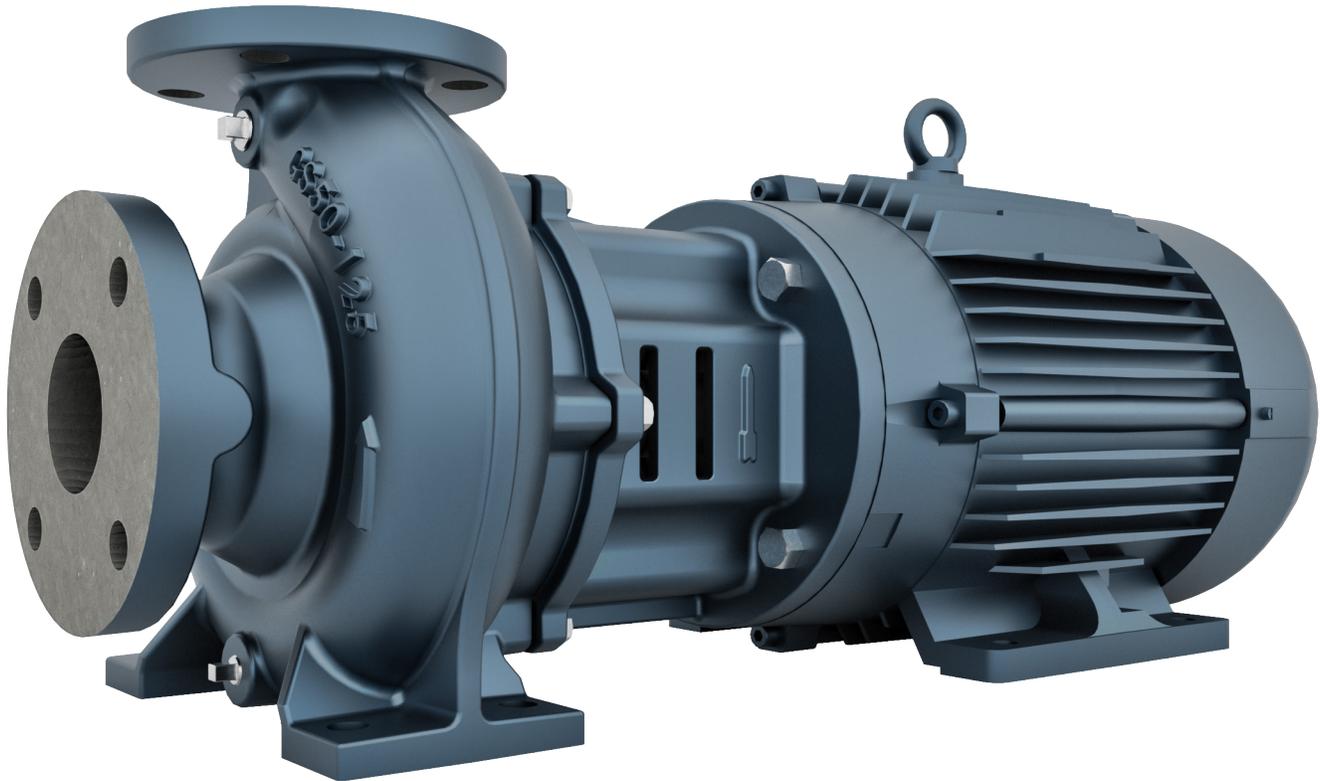

End Suction Centrifugal Pump

Model GSDU



Technical Specification

Specification

Main Applications**BUILDING**

- **Air conditioning-District heating & cooling**

General water supply

Brine (antifreeze liquid)

Hot water circulation

Pressure Boosting

WATER SUPPLY

- **Municipal water supply**

- **Irrigation**

- **Clean water drainage**

- **Fire protection**

- **Swimming pool**

GENERAL INDUSTRY

- **Semiconductor Industry**

Pure water

- **Food industry**

General water (Cooling water, Recycling water, Filtered water)

CIP (Cleaning in Place) , below 122°F (50°C) and below conc. of 20%

- **Pulp and Paper Industry**

White water (below pulp conc. of 0.3%)

- **Automobile industry**

Water (without slurry)

Detergent (without slurry)

- **Steel industry - Non-ferrous metals industry**

Coolant

Cooling Water

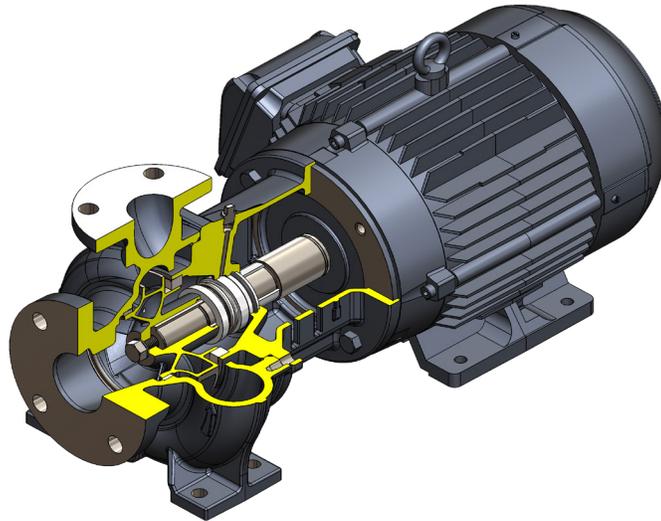
- **Garbage incineration**

Cooling Water

Deaerater

Condensate water

Specification

Product Features**Energy-saving Design**

- World top class pump efficiency achieved.
- Major improvement over our previous models by impeller designed using our proprietary 3D inverse design technology.
- Higher efficiency means lower energy consumption and motor output, and more compact size.

Simple Maintenance

- Alignment is not required with close couples design.
- Back pull-out structure enables disassembly and inspection without removal of suction and discharge piping.
- Shaft seal flushing and quenching piping not required for the standard application.
- Air-bleeding not required.
- Simplified shaft seal and O-ring casing seals enable easy assembly.

Pump Specifications

- Maximum operating pressure: 200 psi.
- Liquid temperature range expansion: 14°F to 250°F.
- ANSI B16.1 125lb flanges.
- Type 21 mechanical seal SiC/C/EPDM as standard.
- Stainless steel 316 (CF8M) impeller.
- Stainless steel 316 shaft sleeve.
- Lead-free bismuth bronze casing rings.
- Dry shaft design prevents corrosion at the motor shaft.

International Standards

- Pump dimensions in accordance with EN733.
- Safety design compliant with ISO 13852.
- Electric motor conforms to NEMA MG1.

Specification

General Description

PUMP

Capacities	To 2000 GPM
Heads	To 460 ft
Liquid Temperatures	14°F to 250°F
MAX. Working Pressure	Up to 200 psi
Discharge Size	1.25" to 6"
Materials	Casing: Cast Iron (Epoxy coated A48 CL35) Impeller: Stainless Steel 316 (CF8M) Casing ring: Lead-free Bismuth bronze (CAC902) Mechanical seal: Standard: SiC / C / EPDM (E) Options: SiC / SiC / EPDM (M) SiC / C / Viton (V) SiC / SiC / Viton (N)
Standards	ANSI B16.1 125lb, EN733
Rotation	Clockwise viewed from coupling end
Base/Support	(Available upon request) (Material: ASTM A36)

MOTOR

Frequency	60Hz
Operational Speed	3500rpm (2-pole) / 1750rpm (4-pole)
Phase	3-Phase*
Motor Power	1.5 to 60 hp
Voltage	230 / 460V
Enclosure	TEFC (Standard) / ODP (Option*)
Standards	NEMA MG1 JM/JP Shaft

*NOTE: Different options are available. Contact factory for details.



Certified to
NSF/ANSI CAN 61
& 372

*Note: Model GSDU with seal code "E" is Certified



EBARA PUMPS AMERICAS CORPORATION

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Specification

Design Details

FEATURES

- Horizontal foot mounting
- Close-coupled design
- Single-stage
- Radially split volute casing

APPLICABLE FLANGE STANDARD

- ANSI B16.1 CLASS 125LB

IMPELLER TYPE

- Closed, single suction type and balancing holes to reduce axial thrust

SHAFT SEAL

- Single mechanical seal rubber bellows Type 21 (SiC/C/EPDM as standard)
- Optional seal flush plans (11, 12, 13, 32)

BEARINGS AND LUBRICATION

- According to motor supplier

PAINTING

1. Outer Surface

- Standard

Primer coating	Nitrocellulose based painting
Final coating	Epoxy based painting
Finish color	Blue gray (Munsell 2.5PB 4/2)

2. Inner Surface (casing and bracket)

- Standard

Primer coating	Epoxy based painting
Finish color	White

Note: Pump Kit Parts Exterior Surfaces are in Primer Only.

Specification

Designation

The following designation is system according to EN733



Model _____
 GSDU - End Suction Close Coupled Pump

Series _____
 2 - 2-pole (3500rpm)
 4 - 4-pole (1750rpm)

Discharge _____
 32 - 1-1/4" 80 - 3"
 40 - 1-1/2" 100 - 4"
 50 - 2" 125 - 5"
 65 - 2-1/2" 150 - 6"

Nominal Impeller Diameter(mm)* _____
 125 250
 160 315
 200

*.1 Indicates different casing and impeller desing to similar model

Motor Horsepower _____
 15 - 1.5hp 75 - 7.5hp 250 - 25hp 600 - 60hp
 20 - 2hp 100 - 10hp 300 - 30hp
 30 - 3hp 150 - 15hp 400 - 40hp
 50 - 5hp 200 - 20hp 500 - 50hp

Motor Enclosure _____
 T - TEFC
 D - Open Drip Proof (Opt.)
 W - Washdown (Opt.)
 X - Explosion Proof (Opt.)

Power Phase _____
 3 - Three Phase
 1 - Single Phase (Opt.)

Seal Designator _____
 E - SiC/Carbon/EPDM - 316SS
 M - SiC/SiC/EPDM - 316SS
 V - SiC/Carbon/Viton - 316SS
 N - SiC/SiC/Viton - 316SS

Scope _____
 Blank - Pump & Motor
 R - With motor/pump support (Opt.)
 B - Base package (opt.)



Specification

Designation - Pump Kit (without motor)

The following designation is system according to EN733

GSDU 4 - 32 - 160 NB E - 145JM

Model _____
 GSDU - End Suction Close Coupled Pump

Series _____
 2 - 2-pole (3500rpm)
 4 - 4-pole (1750rpm)

Discharge _____
 32 - 1-1/4" 80 - 3"
 40 - 1-1/2" 100 - 4"
 50 - 2" 125 - 5"
 65 - 2-1/2" 150 - 6"

Nominal Impeller Diameter(mm)* _____
 125 250
 160 315
 200

*.1 Indicates different casing and impeller desing to similar model

Pump Kit _____
 NB - Identification for pump kit (without motor)

Seal Designator _____
 E - SiC/Carbon/EPDM - 316SS
 M - SiC/SiC/EPDM - 316SS
 V - SiC/Carbon/Viton - 316SS
 N - SiC/SiC/Viton - 316SS

Motor Frame Size _____

145JM - 143/5JM	215JP - 213/5JP	286JP - 284/6JP
184JM - 182/4JM	256JM - 254/6JM	326JM - 324/6JM
215JM - 213/5JM	286JM - 284/6JM	326JP - 324/6JP



Specification

1. General:

Ebara GSDU pumps are designed to achieve high efficiency and ease of maintenance. They shall be horizontal foot mounting, single-stage and radially split volute casing. The pump has a back pull-out design, allowing the rotating element to be removed without disturbing the flanged piping connections. The suction (end position) and discharge (top position) flanges are ANSI B16.1 Class 125lb. Pump dimensions according to EN733.

The maximum working temperature, for the standard mechanical seal, shall be 250 °F. The maximum working pressure for the standard flange configuration (ANSI Flanges Class 125) shall be 200 psi.

- a. CASING:** The pump casing will be a material minimum of epoxy coated Grade A48 CL35 Cast Iron. Mounting feet will be integrally cast and sized to prevent tipping. Castings shall be smooth surfaces and free of blow holes and other casting irregularities.

Casing drain plug will be a minimum of 1/4" BSP for complete and rapid draining.

The discharge flange shall be fitted with a 3/8" BSP tapped hole with pipe plug suitable for mounting gages and other equipment as desired. It is possible to add a 3/8" BSP tapped hole in the suction flange (under request).

- b. IMPELLER:** The impeller shall be Stainless Steel 316 (CF8M), closed type and single suction, with balancing holes to reduce axial thrust.

- c. WEAR RINGS:** Replaceable casing ring and cover ring shall be Lead-free Bismuth bronze (CAC902). Maintains working clearances while reducing maintenance costs.

- d. SHAFT:** The motor shaft made of Steel shall be covered with shaft sleeve made of Stainless Steel 316 to prevent from contacting with liquid.

- e. BEARINGS:** Shield bearings eliminate needs for adding or exchanging lubricating oil. Simplified bearings enable easy assembly and maintenance.

- f. MECHANICAL SEAL:** Standard Shaft seals faces shall be SiC/Carbon. The cage and spring shall be made of stainless steel, and the elastomers shall be EPDM as standard.

Shaft seal flushing and quenching piping are not required for the standard application. Simplified shaft seal enables easy assembly and maintenance.

- g. BASE:** Pump and motor/drive assembly shall be mounted on a common fabricated steel baseplate as an option. The baseplates will be formed as a type for skid packages.

- h. MOTORS:** Motors are to be provided with the following basic features:



Specification

Frequency	60Hz
Operational speed	3500rpm (2-Poles)/1750rpm (4-poles)
Phase	3-Phase*
Motor Power	1.5 to 60 hp
Voltage	230/460V
Enclosure	TEFC(Standard)/ODP(Optional*)
Standards	NEMA MG1 JM/JP Shaft

*NOTE: Other MOTOR options are available on request. Contact Factory for details.



Specification

Applicable Model

● : Applicable

Model	60Hz		Remarks
	3500 rpm (2Pole)	1750 rpm (4pole)	
GSDU 32-125.1	●	—	different hydraulic designs between them
GSDU 32-125	●	—	
GSDU 32-160.1	●	—	different hydraulic designs between them
GSDU 32-160	●	●	
GSDU 32-200.1	●	●	different hydraulic designs between them
GSDU 32-200	●	●	
GSDU 32-250	●	●	
GSDU 40-125	●	—	
GSDU 40-160	●	●	
GSDU 40-200	●	●	
GSDU 40-250	●	●	
GSDU 50-125	●	●	
GSDU 50-160	●	●	
GSDU 50-200	●	●	
GSDU 50-250	—	●	
GSDU 50-315	—	●	
GSDU 65-125	●	●	
GSDU 65-160	●	●	
GSDU 65-200	—	●	
GSDU 65-250	—	●	
GSDU 65-315	—	●	
GSDU 80-160	●	●	
GSDU 80-200	—	●	
GSDU 80-250	—	●	
GSDU 80-315	—	●	
GSDU 100-160	—	●	
GSDU 100-200	—	●	
GSDU 100-250	—	●	
GSDU 100-315	—	●	
GSDU 125-200	—	●	
GSDU 125-250	—	●	
GSDU 150-200	—	●	

