



한국에바라풍수력기계 제품선정프로그램 사용 메뉴얼

EBARA Fluid Machinery Korea Co. Ltd

26th Feb. 2025

Looking ahead,
going beyond expectations

Ahead  *Beyond*

EBARA CORPORATION

펌프 선정 방법

- 펌프 선정에 필요한 정보

1. 유량 : 단위시간당 펌프를 통과하는 유체의 부피(유체이송의 량)
2. 양정 : 펌프가 유체에 부여하는 에너지로서, 압력을 길이 단위로 표현한 것
3. 비중 : 어떤 물질의 밀도와 표준밀도(물)와의 비(물질의 밀도를 물의 밀도로 나누어 준 값)
4. 점도 : 유체의 흐름에서 어려움의 크기를 나타내는 양(끈적임 정도를 표시)
5. 온도 : 유체의 온도(온도에 따라 유체의 포화증기압의 변화, 비중도 변동)
6. 액성 : 유체의 정보(유체이름 등)
7. NPSHa : 펌프 흡입부에 주어지는 조건, Suction 배관관경, 배관의 길이, 유체종류, 온도, Suction부의 압력에 따라 결정된다.

펌프 선정 방법

- 그 외 필요한 정보

1. 펌프 타입 : 횡형/인라인/입형다단... etc
2. 펌프 재질 : 유체/현장 상태에 따라 접촉부 재질 선정 필요
3. 전기사양 : 모터의 전기 사양(전압/Hz/방폭 적용 여부...)

펌프 선정 방법

1. 한국에바라펌수력기계 공식 홈페이지 “제품선정 프로그램”
2. EBARA Pump Web Selector 에 접속

The image shows a sequence of steps to access the Ebara Pump Web Selector. It starts with the EBARA logo and a navigation menu with '제품' (Products), '고객지원' (Customer Support), '서비스' (Service), and '제품선정' (Product Selection). The '제품선정' menu is highlighted, showing options for '제품선정 프로그램' (Product Selection Program) and '제품선정 매뉴얼' (Product Selection Manual). A red arrow points from the '제품선정 프로그램' option to the 'Ebara Pump Web Selector' interface.

The 'Ebara Pump Web Selector' interface includes the following elements:

- Header: 'Ebara Pump Web Selector' and 'eDYNAMiQ Eco, Dynamic and Integrated Quality'.
- Information section: '[INFORMATION] We would like to inform you of the following three updates. · The GSD series has been released for the European market by Ebara Pumps Europe. · 3E-K series have been released. · 3E and 3ES series have been released. [新消息]'.
- Hydraulic selection: A section with a calculator icon and a pump icon labeled 'Hydraulic selection'.
- Spare parts selection: A section with a wrench icon labeled 'Spare parts selection'.
- Spare part search: A section with a wrench icon labeled 'Spare part search'.
- Search filters: A search bar with 'Q in m³/h', 'H in m', and '60 Hz' dropdown, and a search button.
- Product filters: A section with 'Product filters' and 'Pump series' dropdown.

펌프 선정 방법

3. 필요한 유량/양정/Hz를 기입, 선정가능 라인업 확인

유량 양정 Hz

Product filters

Pump series

<input type="checkbox"/>	Make	Series
<input type="checkbox"/>	EBAS	BHSE12 (1)
<input type="checkbox"/>	EMC	CB (4)
<input type="checkbox"/>	EMC	GSO (2)
<input type="checkbox"/>	EPPI	GSS (1)
<input type="checkbox"/>	PTEI	CSA_CNA (4)
<input type="checkbox"/>	PTEI	FSA (1)
<input type="checkbox"/>	PTEI	GS (2)

→ 선정 가능한 모델

펌프 선정 방법

4. 모델 체크 후 엔터

600 | 100 | 60 Hz

Product filters

Pump series

<input type="checkbox"/>	Make	Series
<input type="checkbox"/>	EBAS	BHSE12 (1)
<input type="checkbox"/>	EMC	CB (4)
<input checked="" type="checkbox"/>	EMC	GSO (2)
<input type="checkbox"/>	EPPI	GSS (1)
<input type="checkbox"/>	PTEI	CSA_CNA (4)
<input type="checkbox"/>	PTEI	FSA (1)
<input type="checkbox"/>	PTEI	GS (2)

EBARA

Pumps

Product name	Design	n* rpm
Recommendation		
GSO200-150-500/46250	End Suction Volute Pump	1750
GSO250-200-500/46250	End Suction Volute Pump	1750

2 entries found

Information

- Pump performance curves
- Product description
- Materials
- Dimensions
- Additional information
- Running costs
- Data sheets

GSO200-150-500/46250: Pump performance curves

Diagram layout | Diagram options | Performance curve | Duty point | Text alignme

Head (H/m) vs Shaft power (P2/kW) graph. The y-axis ranges from 0 to 120 m, and the x-axis ranges from 0 to 100 kW. A green horizontal line indicates a head of 104.1 m and a shaft power of 217.9 kW. An application range is marked between approximately 50% and 74% efficiency.

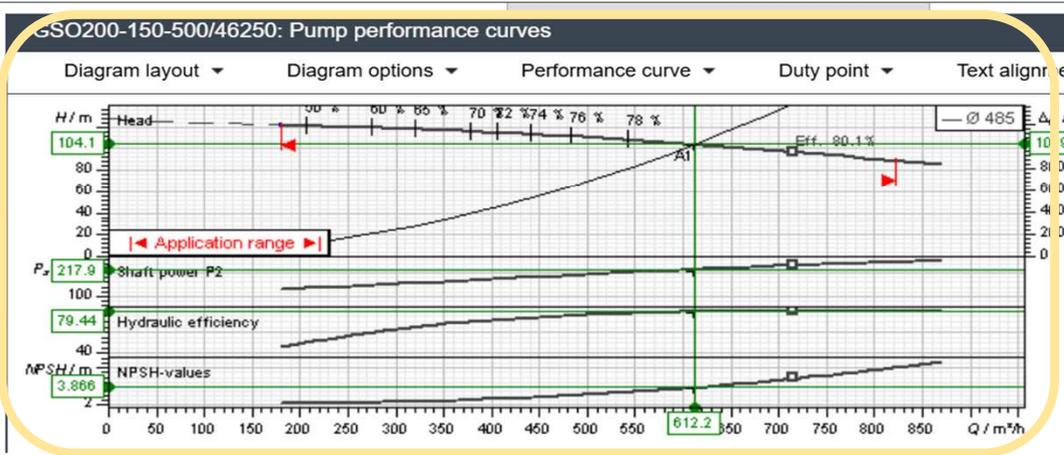
펌프 선정 프로그램 인터페이스



Product name	Design	n* rpm	D2 mm	Qtot m³/h	Htot m	P2tot kW	η %	Energy c...	Item no.	Total pri...
Recommendation										
GSO200-150-500/46250	End Suction Volute Pump	1750	485	612.2	104.1	217.9	79.44	285109.33		Price on re
GSO250-200-500/46250	End Suction Volute Pump	1750	454	604.9	101.7	227.1	73.58	297105.47		Price on re

선택가능
펌프

- Information
- Pump performance curves
- Product description
- Materials
- Dimensions
- Additional information
- Running costs
- Data sheets



펌프
성능곡선

Impeller Trimming

모터 속도 조절

Current configuration

Rated duty point: A1 [Q: 600m³/h / H: 100m]

Optimize

- Hydraulic selection
- Duty chart: GSO200-150-500 4P60Hz_1750
- Performance curve: Ø 485
- Motor: WOLONG
- Main category: 3~ motor
- Motor design: TEFC
- Frequency, poles: 60 Hz - 4 poles

Optimize

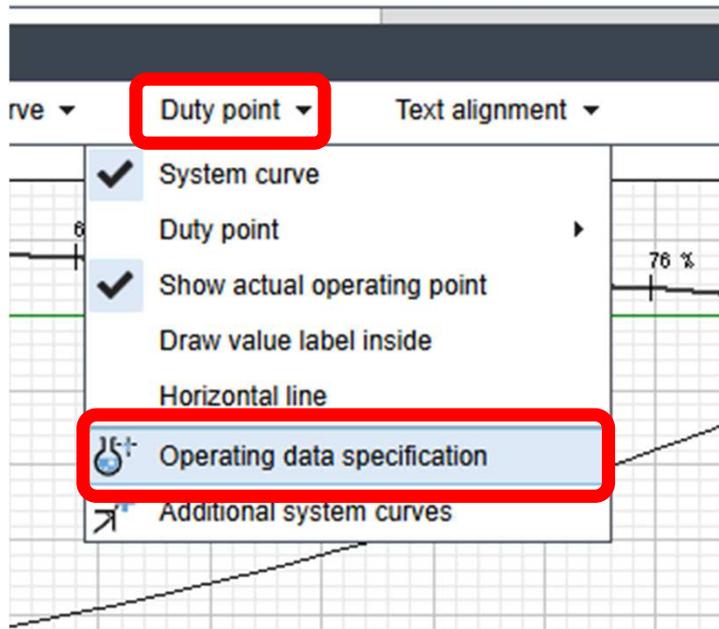
Reduce impeller size

Reference diameter: 485 mm

Target value: 477.3 mm

- Adapt speed
- None
- Multiple speed curves

유체조건 기입



^ Show more options

Circuit type

Nature of system * Single head pump

Operating data

Duty point name A1

Flow * 600 m³/h

Head * 100 m

Total static head 0 m

Medium data

Fluid * Water

Temperature * 20 °C

Density * 998.3 kg/m³

Viscosity * 1.005 cSt

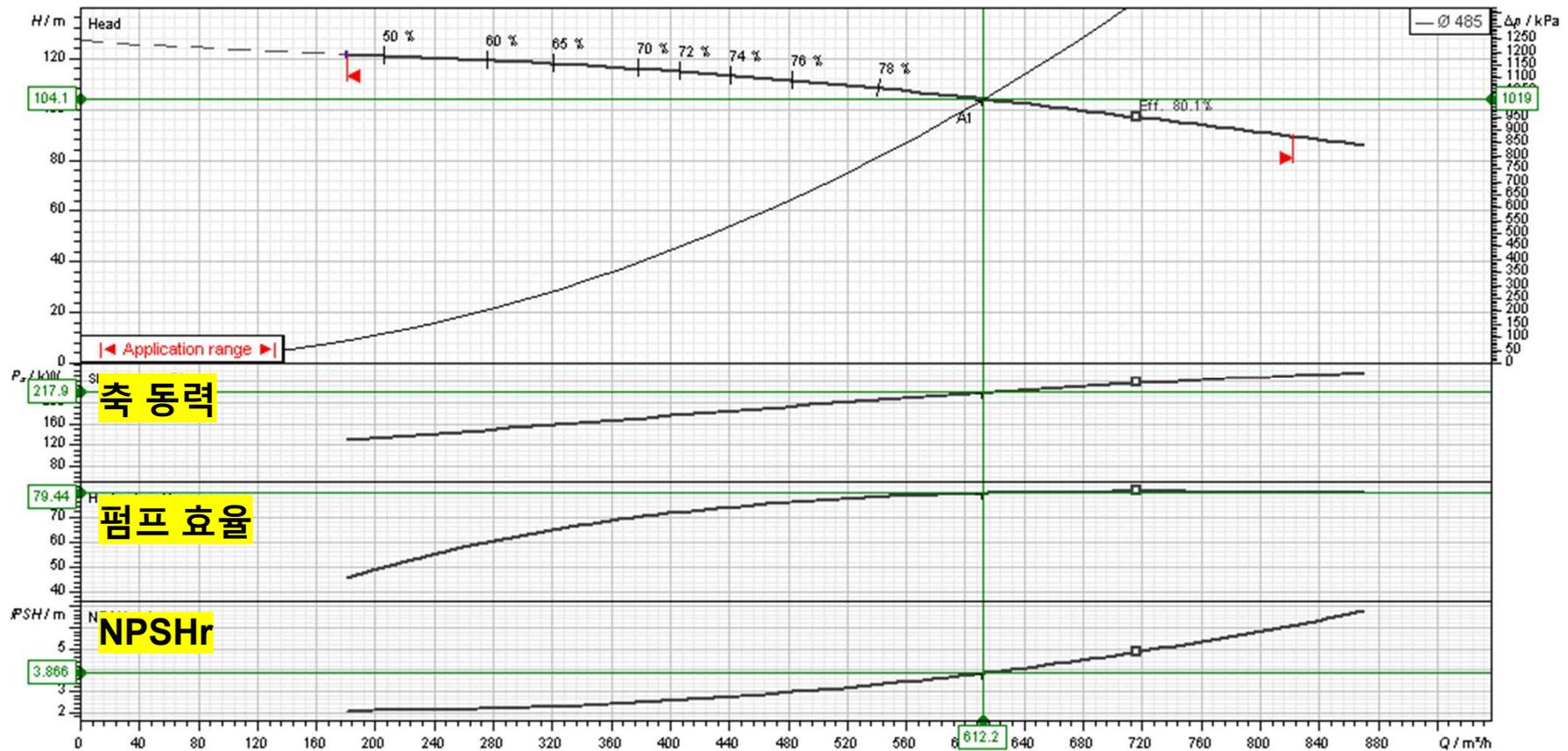
LCC settings

Operating cost settings - Standard -

온도/밀도/점도 입력하여 유체에 따른 성능 보정 필요
 모터 동력 선정에 필요한 요소이므로 반드시 확인 필요

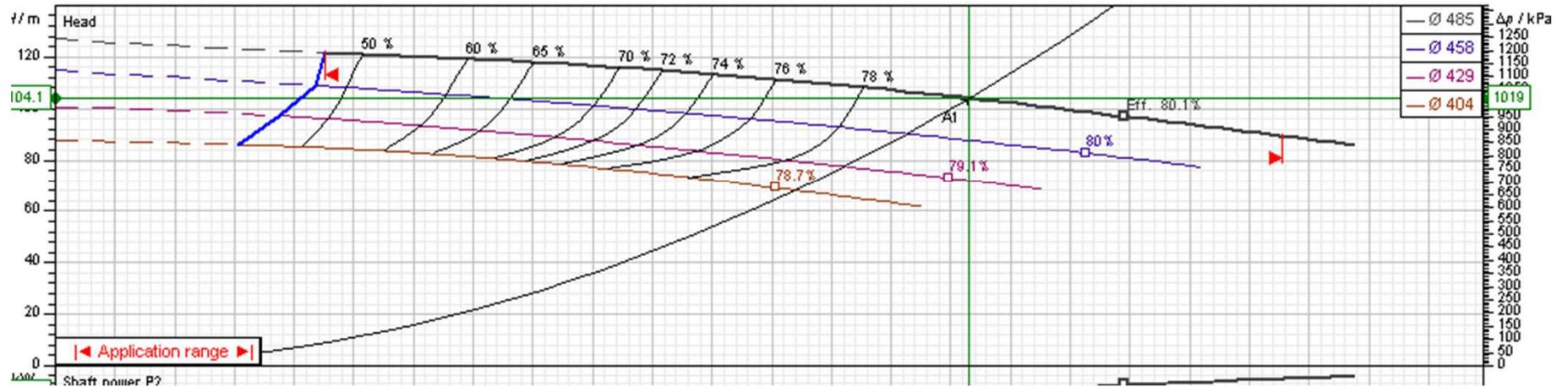
펌프 성능곡선

Y축 : 양정

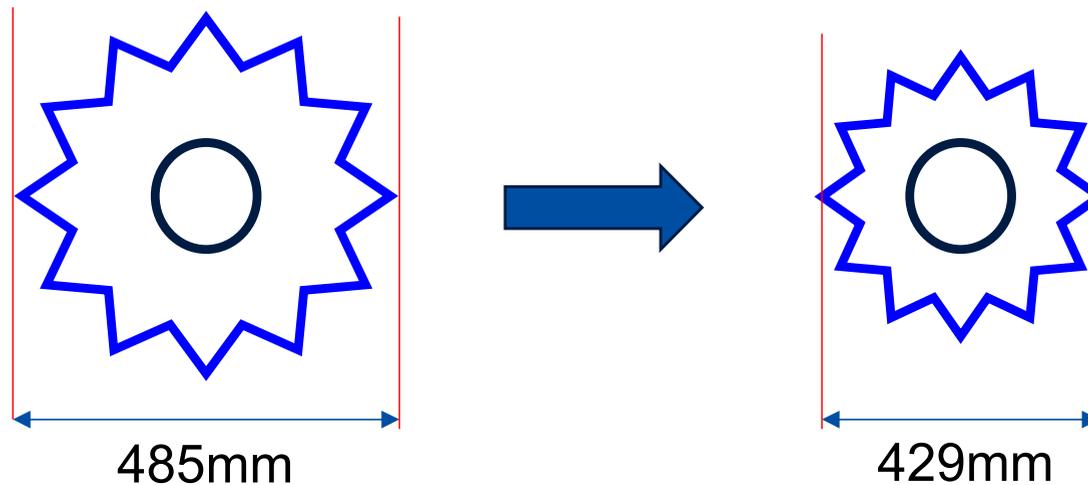


X축 : 유량

Impeller Trimming



Impeller 외경을 가공하여, 필요한 유량/양정에서 운전하도록 최적화

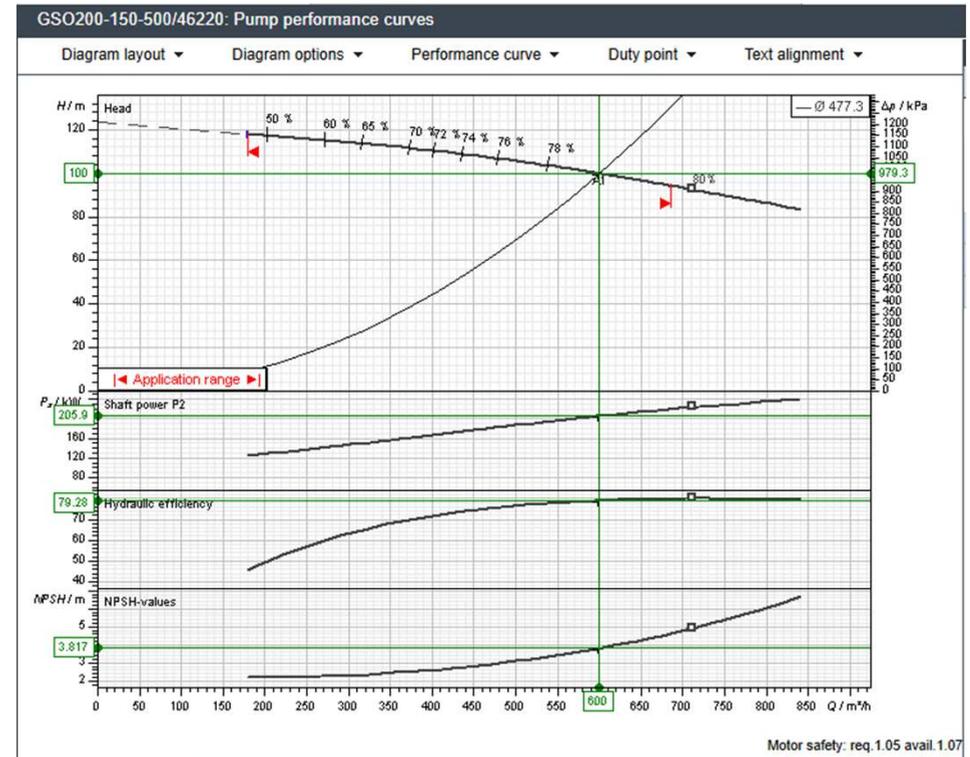
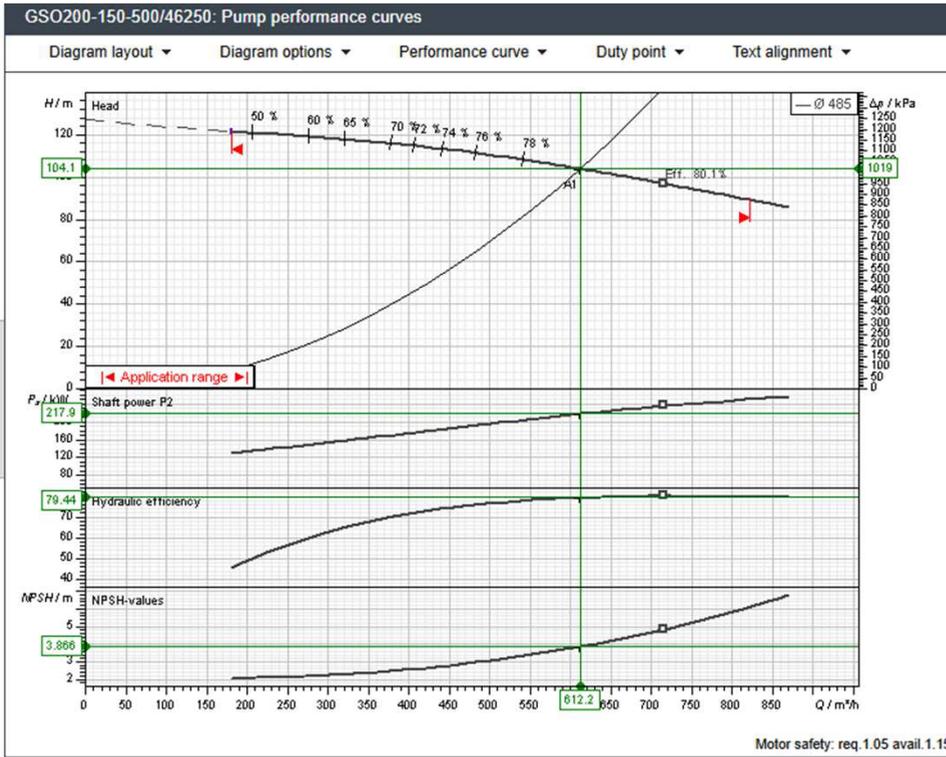


Impeller Trimming



612.2m³/hr @ 104.1m

600m³/hr @ 100m



Optimize >

Reduce impeller size ▲

✂
📊
↶

Reference diameter	485	mm
Target value	477.3	mm

Adapt speed

None

Multiple speed curves

Optimize >

Reduce impeller size ▲

✂
📊
↶

Reference diameter	477.3	mm
Target value	477.3	mm

Adapt speed

None

Multiple speed curves

Datasheet

적합한 펌프 선정 후 펌프 기술사양서 출력 가능

EBARA Pumps

Product name	Designation
Recommendation	
GSO200-150-500/46250	End S
GSO250-200-500/46250	End S

2 entries found

Information

- Pump performance curves
- Product description
- Materials
- Dimensions
- Additional information
- Running costs
- Data sheets**

GSO200-150-500/462

Diagram layout

Head: 104.1
 Shaft power P2: 217.9
 Hydraulic efficiency: 79.44
 NPSH-values: 3.866

GSO200-150-500/46250: Data sheets

Untitled project 2025-01-16 08:44:43.957

Technical Data

Pump Name: GSO200-150-500/46250

Customer	Date	Company
Contact	2025-01-16	
Phone	Item no.	Issued by
E-mail	Project	Phone
	Project ID	E-mail

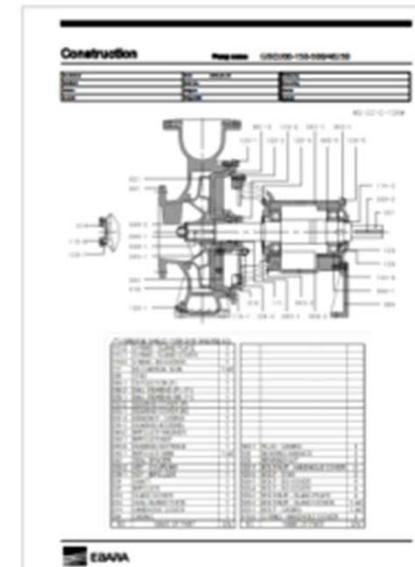
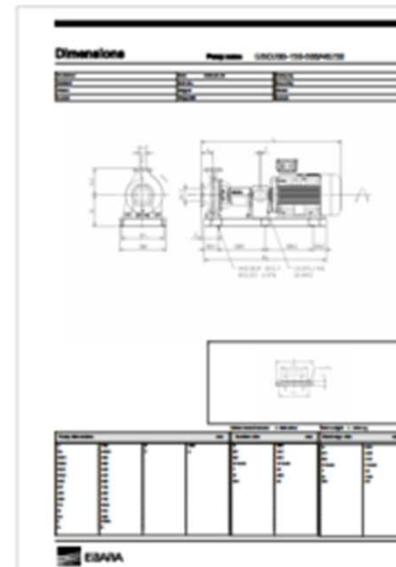
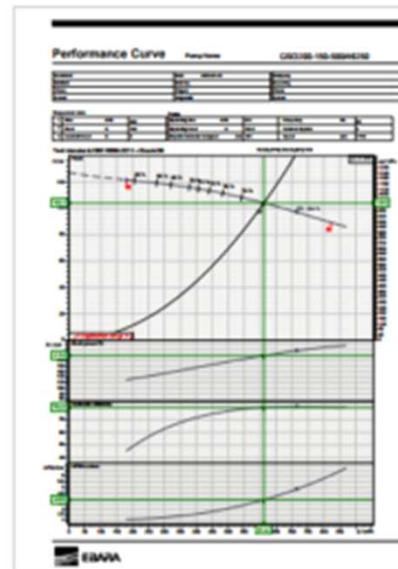
Requested data

1 Pump type	End Suction Volute Pump	Fluid	Water
2 Number of pumps / Reserve	1 / 0	Liquid temperature	°C 20
3 Flow	m³/h 600	Kin. viscosity	cSt 1.005
4 Head	m 100	Vapour pressure	kPa 2.34
5 Geodetic head	m 0	PH value	
6 Inlet pressure (pin)	kPa 0	Density	kg/m³ 998.3
7 Available system NPSH		Solids	Weight % 0
8 Ambient temperature	°C 20		

Pump

9 Pump Name	GSO200-150-500/46250	Frequency	Hz 60
10 Design	End Suction Volute Pump	Installation type	with base, motor
11 Manufacturer	EMC	Impeller Diameter	Max. mm 485 Designed mm 485
12 Speed	rpm 1750	Min. mm	404
13 No. of Stage	1	Operating m³/h	612
14 Connection Suction side	EN PN16	Max. m³/h	870
15 Connection Discharge side	EN PN16	Min. m³/h	181
16 Max Working Pressure	kPa 1600	Operating m	104.1
17 Shut-off head	kPa 1245.90	-(Dmax.) m	86.1
18 Total weight	kg See the table of "Dimensions".	-(Dmin.) m	121.6
19 Shaft power	kW 217.92	Max. Shaft Power at max. impeller	kW 255.21
20			

Datasheet



DATASHEET / 성능곡선 / 표준 외형도 / 표준 부품도.. Etc
 전반적인 펌프 기술자료 확인 가능

견적/제품 문의 Contact Point



견적요청

email : sales.efmk@ebara.com

문의사항

TEL | 02-2135-6111

- 평일 : 오전9시 ~ 오후6시
- 토, 일, 공휴일 : 휴무
- email : sales.efmk@ebara.com

상기 Contact Point를 통해 EBARA의 기술 지원 및 상담을 받으실 수 있습니다.

Thank You.



Looking ahead, going beyond expectations

Ahead  *Beyond*