(৪৫)

ঢাকা পানি সরবরাহ ও পয়ঃ নিষ্কাশন কর্তৃপক্ষ

নির্বাহী প্রকৌশলীর কার্যালয়
সংগ্রহ বিভাগ-২, ওয়াসা ভবন (৬ষ্ঠ তলা),
৯৮, কাজী নজলরুল ইসলাম এভিনিউ, কাওরান বাজার, ঢাকা-১২১৫।

শেখ হাসিনার মূলনীতি
গ্রাম শহরের উন্নতি

মালামালের বাস্তব (ফিজিক্যাল) পরিদর্শন ও পরীক্ষণ রিপোর্ট

চুক্তি নং-	ঃ	৪৬.০৫.০০০০.৪২৮.০৭.০২৮.২২/২০২২-২৩/eGP-সি০৬;	তারিখ ঃ ২৮/০৯/২০২২ ইং।
সরবরাহ আদেশ স্মারক নং-	ঃ	৪৬.০৫.০০০০.৪২৮.০৭.০২৮.২০২২-১৯৩;	তারিখ ঃ ১৮/১০/২০২২ ইং।
কাজের নাম	ঃ	ঢাকা ওয়াসার এফ. এম. বিভাগ এর জন্য ১৫০ ঘনমিটার/ঘন্টা ১১০ মিটার হেড সাব-মার্সিবল পাম্প-মোটর সংগ্রহ কাজ।	
সরবরাহকারীর নাম	ঃ	প্রাইম ইঞ্জিনিয়ারিং, ট-৩৯/১, গুলশান লিংক রোড, মধ্য বাড্ডা, ঢাকা-১২১২, বাংলাদেশ।	
সরবরাহকারী বিভাগের নাম	ঃ	সংগ্রহ বিভাগ-২, ঢাকা ওয়াসা।	
ব্যবহারকারী বিভাগের নাম	ঃ	ঢাকা ওয়াসার এফ. এম. বিভাগ।	
সরবরাহের স্থান	ঃ	ভান্ডার বিভাগ, ঢাকা ওয়াসা।	
সরবরাহের তারিখ	ঃ	০২/০৯/২০২৩ ইং।	যৌথ পরিদর্শনের তারিখঃঃ ২৬/১০/২০২৩ ইং।

ক্র.নং	মালামালের বিবরণ	চুক্তি অনুযায়ী মালামালের পরিমাণ	একই কিস্তিতে দেয় মালামালের পরিমাণ
১।	150 m^3/hr.110-meter head submersible pump-motor	৪৫ (পঁয়তাল্লিশ) সেট	৪৫ (পঁয়তাল্লিশ) সেট

সরবরাহকৃত 150 m^3/hr. 110-meter head submersible Pump সমূহের তালিকাঃ

SL	Pump serial	SL	Pump serial	SL	Pump serial	SL	Pump serial	SL	Pump serial
1	2302219	10	2302228	19	2302237	28	2302246	37	2302255
2	2302220	11	2302229	20	2302238	29	2302247	38	2302256
3	2302221	12	2302230	21	2302239	30	2302248	39	2302257
4	2302222	13	2302231	22	2302240	31	2302249	40	2302258
5	2302223	14	2302232	23	2302241	32	2302250	41	2302259
6	2302224	15	2302233	24	2302242	33	2302251	42	2310927
7	2302225	16	2302234	25	2302243	34	2302252	43	2310928
8	2302226	17	2302235	26	2302244	35	2302253	44	2310929
9	2302227	18	2302236	27	2302245	36	2302254	45	2310930

সরবরাহকৃত 150 m^3/hr. 110-meter head submersible Motor সমূহের তালিকাঃ									
SL	Pump serial	SL	Pump serial	SL	Pump serial	SL	Pump serial	SL	Pump serial
1	23C722400063B	10	23C722400072B	19	23C722400081B	28	23C721700099B	37	23C721700108B
2	23C722400064B	11	23C722400073B	20	23C722400082B	29	23C721700100B	38	23C721700109B
3	23C722400065B	12	23C722400074B	21	23C722400083B	30	23C721700101B	39	23C721700110B
4	23C722400066B	13	23C722400075B	22	23C721700093B	31	23C721700102B	40	23C721700111B
5	23C722400067B	14	23C722400076B	23	23C721700094B	32	23C721700103B	41	23C721700112B
6	23C722400068B	15	23C722400077B	24	23C721700095B	33	23C721700104B	42	23C721700 113B
7	23C722400069B	16	23C722400078B	25	23C721700096B	34	23C721700105B	43	22M720900073B
8	23C722400070B	17	23C722400079B	26	23C721700097B	35	23C721700106B	44	22M720900074B
9	23C722400071B	18	23C722400080B	27	23C721700098B	36	23C721700107B	45	22M720900075B

যৌথ পরিদর্শন কমিটির বাস্তব (ফিজিক্যাল) পরিদর্শন রিপোর্ট ও স্বাক্ষর ঃ

যৌথ পরিদর্শন কমিটি কর্তৃক সমুদয় মালামাল পরিদর্শন করা হইল এবং তা বাহ্যিকভাবে সঠিক পাওয়া গেল। বাহ্যিকভাবে সঠিক পাওয়ায় টেষ্টের জন্য নমুনা সংগ্রহ করা হল। এম.আই.এস.টি হইতে প্রাপ্ত টেষ্ট রির্পোটের ভিত্তিতে সমুদয় মালামাল চূড়ান্তভাবে গ্রহণ/ বাতিলের সুপারিশ করা হইবে।

26/10/23

মোঃ জয়নাল আবদীন
নির্বাহী প্রকৌশলী সংগ্রহ বিভাগ-২,
ঢাকা ওয়াসা ও সদস্য-সচিব,
যৌথ পরিদর্শন কমিটি।

26/10/23

মোঃ ছরোয়ার হোসেন খান
নির্বাহী প্রকৌশলী
ভান্ডার বিভাগ, ঢাকা ওয়াসা ও সদস্য,
যৌথ পরিদর্শন কমিটি।

26/10/23

লেঃ কর্ণেল মোঃ মাকসুদুল (অবঃ)
প্রধান নিরাপত্তা কর্মকর্তা, নিরাপত্তা ও গোয়েন্দা
বিভাগ,ঢাকা ওয়াসা
ও সদস্য, যৌথ পরিদর্শন কমিটি।

26/10/23

সুজন চন্দ্র বর্মন
নির্বাহী প্রকৌশলী, এফ এম বিভাগ-২,
ঢাকা ওয়াসা ও সদস্য,
যৌথ পরিদর্শন কমিটি।

26.10.2023

মোঃ আঃ লতিফ
তত্ত্বাবধায়ক প্রকৌশলী
আর.পি.ই. এন্ড এম সার্কেল, ঢাকা ওয়াসা ও
আহ্বায়ক, যৌথ পরিদর্শন কমিটি।

ঢাকা পানি সরবরাহ ও পয়ঃ নিষ্কাশন কর্তৃপক্ষ

নির্বাহী প্রকৌশলীর কার্যালয়
সংগ্রহ বিভাগ-২, ওয়াসা ভবন (৬ষ্ঠ তলা),
৯৮, কাজী নজলরুল ইসলাম এভিনিউ, কাওরান বাজার, ঢাকা-১২১৫।

শেখ হাসিনার মূলনীতি
গ্রাম শহরের উন্নতি

মালামাল পরিদর্শন ও টেষ্ট রিপোর্টের উপর যৌথ পরিদর্শন কমিটির মতামত

চুক্তি নং-	ঃ	৪৬.০৫.০০০০.৪২৮.০৭.০২৮.২২/২০২২-২৩/eGP-সি০৬;	তারিখ ঃ ২৮/০৯/২০২২ ইং।
সরবরাহ আদেশ স্মারক নং-	ঃ	৪৬.০৫.০০০০.৪২৮.০৭.০২৮.২০২২-১৯৩;	তারিখ ঃ ১৮/১০/২০২২ ইং।
কাজের নাম	ঃ	ঢাকা ওয়াসার এফ. এম. বিভাগ এর জন্য ১৫০ ঘনমিটার/ঘন্টা ১১০ মিটার হেড সাব-মার্সিবল পাম্প-মোটর সংগ্রহ কাজ।	
সরবরাহকারীর নাম	ঃ	প্রাইম ইঞ্জিনিয়ারিং, ট-৩৯/১, গুলশান লিংক রোড, মধ্য বাড্ডা, ঢাকা-১২১২, বাংলাদেশ।	
সরবরাহকারী বিভাগের নাম	ঃ	সংগ্রহ বিভাগ-২, ঢাকা ওয়াসা।	
ব্যবহারকারী বিভাগের নাম	ঃ	ঢাকা ওয়াসার এফ. এম. বিভাগ।	
সরবরাহের স্থান	ঃ	ভান্ডার বিভাগ, ঢাকা ওয়াসা।	
সরবরাহের তারিখ	ঃ	০২/০৯/২০২৩ ইং।	যৌথ পরিদর্শনের তারিখঃঃ ২৬/১০/২০২৩ ইং।

ক্র.নং	মালামালের বিবরণ	চুক্তি অনুযায়ী মালামালের পরিমাণ	একই কিস্তিতে দেয় মালামালের পরিমাণ
১।	150 m^3/hr.110-meter head submersible pump-motor	৪৫ (পঁয়তাল্লিশ) সেট	৪৫ (পঁয়তাল্লিশ) সেট

সরবরাহকৃত 150 m^3/hr. 110-meter head submersible Pump সমূহের তালিকাঃ

SL	Pump serial	SL	Pump serial	SL	Pump serial	SL	Pump serial	SL	Pump serial
1	2302219	10	2302228	19	2302237	28	2302246	37	2302255
2	2302220	11	2302229	20	2302238	29	2302247	38	2302256
3	2302221	12	2302230	21	2302239	30	2302248	39	2302257
4	2302222	13	2302231	22	2302240	31	2302249	40	2302258
5	2302223	14	2302232	23	2302241	32	2302250	41	2302259
6	2302224	15	2302233	24	2302242	33	2302251	42	2310927
7	2302225	16	2302234	25	2302243	34	2302252	43	2310928
8	2302226	17	2302235	26	2302244	35	2302253	44	2310929
9	2302227	18	2302236	27	2302245	36	2302254	45	2310930

সরবরাহকৃত 150 m^3/hr. 110-meter head submersible Motor সমূহের তালিকাঃ									
SL	Pump serial	SL	Pump serial	SL	Pump serial	SL	Pump serial	SL	Pump serial
1	23C722400063B	10	23C722400072B	19	23C722400081B	28	23C721700099B	37	23C721700108B
2	23C722400064B	11	23C722400073B	20	23C722400082B	29	23C721700100B	38	23C721700109B
3	23C722400065B	12	23C722400074B	21	23C722400083B	30	23C721700101B	39	23C721700110B
4	23C722400066B	13	23C722400075B	22	23C721700093B	31	23C721700102B	40	23C721700111B
5	23C722400067B	14	23C722400076B	23	23C721700094B	32	23C721700103B	41	23C721700112B
6	23C722400068B	15	23C722400077B	24	23C721700095B	33	23C721700104B	42	23C721700 113B
7	23C722400069B	16	23C722400078B	25	23C721700096B	34	23C721700105B	43	22M720900073B
8	23C722400070B	17	23C722400079B	26	23C721700097B	35	23C721700106B	44	22M720900074B
9	23C722400071B	18	23C722400080B	27	23C721700098B	36	23C721700107B	45	22M720900075B

MIST হতে প্রাপ্ত টেষ্ট রির্পোটের উপর যৌথ পরিদর্শন কমিটির মতামত ও স্বাক্ষর ঃ

MIST (ME) REF : 23.12.0902.006.021.011.26.11.2023 Date: 26/11/2023; MIST হতে প্রাপ্ত টেষ্ট রিপোর্টের ভিত্তিতে উপরে উল্লেখিত তালিকার পাম্প মোটর সমূহ যৌথ পরিদর্শন কমিটি কর্তৃক চূড়ান্তভাবে গ্রহণের সুপারিশ করা হল।

17/12/23

মোঃ জয়নাল আবদীন
নির্বাহী প্রকৌশলী সংগ্রহ বিভাগ-২,
ঢাকা ওয়াসা ও সদস্য-সচিব,
যৌথ পরিদর্শন কমিটি।

17/12/23

মোঃ ছরোয়ার হোসেন খান
নির্বাহী প্রকৌশলী
ভান্ডার বিভাগ, ঢাকা ওয়াসা ও সদস্য,
যৌথ পরিদর্শন কমিটি।

17/12/23

লেঃ কর্ণেল মোঃ মাকসুদুল (অবঃ)
প্রধান নিরাপত্তা কর্মকর্তা, নিরাপত্তা ও গোয়েন্দা
বিভাগ,ঢাকা ওয়াসা
ও সদস্য, যৌথ পরিদর্শন কমিটি।

17/12/23

সুজন চন্দ্র বর্মন
নির্বাহী প্রকৌশলী, এফ এম বিভাগ-২,
ঢাকা ওয়াসা ও সদস্য,
যৌথ পরিদর্শন কমিটি।

17.12.2023

মোঃ আঃ লতিফ
তত্ত্বাবধায়ক প্রকৌশলী
আর.পি.ই. এন্ড এম সার্কেল, ঢাকা ওয়াসা ও
আহ্বায়ক, যৌথ পরিদর্শন কমিটি।

Consultancy, Advisory and Testing Services (CATS)
Faculty of Mechanical Engineering (FME)
Military Institute of Science and Technology (MIST)

TEST REPORT FOR SUBMERSIBLE PUMP

Date: 26-11-2023

CLIENT	:	Executive Engineer Shongroh Bivag - 2 Dhaka Wasa, Dhaka
CLIENT'S REF	:	46.05.0000.428.07.028.2022-363 Date: 26-10-2023
MIST (ME) REF	:	23.12.0902.006.021.011.26.11.2023
NAME OF SUPPLIER	:	Prime Engineering

TEST CONDUCTED BY
DEPARTMENT OF MECHANICAL ENGINEERING
MILITARY INSTITUTE OF SCIENCE AND TECHNOLOGY
DHAKA-1216



Consultancy, Advisory and Testing Services (CATS)

Faculty of Mechanical Engineering (FME)

Military Institute of Science and Technology (MIST)

SAMPLES SUPPLIED :

Submersible Pump
110.00 m (360.89 ft)
150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)
Pump No: 2302247
Motor No: 23C721700111B

Submersible Pump
110.00 m (360.89 ft)
150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)
Pump No: 2302256
Motor No: 23C721700096B

Submersible Pump
110.00 m (360.89 ft)
150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)
Pump No: 2302225
Motor No: 23C721700106B

Submersible Pump
110.00 m (360.89 ft)
150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)
Pump No: 2302219
Motor No: 23C721700100B

Submersible Pump
110.00 m (360.89 ft)
150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)
Pump No: 2302250
Motor No: 23C721700097B

Submersible Pump
110.00 m (360.89 ft)
150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)
Pump No: 2302222
Motor No: 23C721700099B

Submersible Pump
110.00 m (360.89 ft)
150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)
Pump No: 2302241
Motor No: 22M720900075B

Submersible Pump
110.00 m (360.89 ft)
150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)
Pump No: 2302246
Motor No: 23C721700112B

Submersible Pump
110.00 m (360.89 ft)
150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)
Pump No: 2302230

Consultancy, Advisory and Testing Services (CATS)
Faculty of Mechanical Engineering (FME)
Military Institute of Science and Technology (MIST)

RESULT SHEET

Pump Type:	Submersible Pump	Client:	Executive Engineer Shongroh Bivag - 2 Dhaka Wasa, Dhaka
Head:	110.00 m (360.89 ft)	Client's Ref and Date:	46.05.0000.428.07.028.2022-363 Date: 26-10-2023
Discharge:	150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)	Name of Supplier:	Prime Engineering
Pump No:	2302247	MIST (ME) Ref:	23.12.0902.006.021.011.26.11.2023-1
Motor No:	23C721700111B	Pump ID:	20231119-0460
Date of Test:	19-11-2023	Ambient Temperature:	29°C
Relative Humidity:	55%	Water Temperature:	28°C
Rated Speed:	3010 RPM	Operating Voltage:	400±2 V

No	Discharge (m^3/hr)	Total Head (m)	Input Power (kW)	Combined Efficiency (%)
1	96.37	156.71	70.12	58.67
2	105.02	148.29	70.53	60.15
3	112.81	142.69	71.36	61.45
4	126.26	135.70	73.17	63.79
5	139.39	132.22	75.66	66.36
6	142.70	130.48	75.80	66.92
7	152.97	124.18	76.10	68.00
8	157.87	120.34	76.36	67.78
9	163.64	115.30	76.50	67.19
10	168.53	111.24	76.76	66.53
11	179.41	100.74	76.52	64.34
12	185.70	94.08	76.31	62.37
13	199.42	79.73	76.01	56.99
14	205.82	72.73	75.14	54.27

1. At maximum combined efficiency of 68.00%, the pump delivered 152.97 m^3/hr (1.50 ft^3/sec, 2,549.98 l/min) discharge, at a total head of 124.18 m (407.42 ft) with an input power of 76.10 kW.

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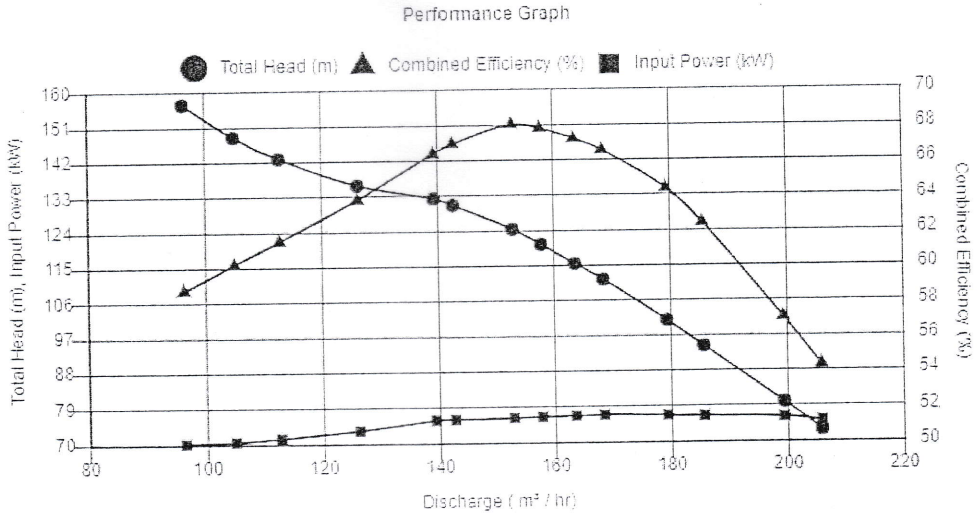
Consultancy, Advisory and Testing Services (CATS)

Faculty of Mechanical Engineering (FME)

Military Institute of Science and Technology (MIST)

PERFORMANCE CURVE

Pump Type:	Submersible Pump	Client:	Executive Engineer Shongroh Bivag - 2 Dhaka Wasa, Dhaka
Head:	110.00 m (360.89 ft)	Client's Ref and Date:	46.05.0000.428.07.028.2022-363 Date: 26-10-2023
Discharge:	150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)	Name of Supplier:	Prime Engineering
Pump No:	2302247	MIST (ME) Ref:	23.12.0902.006.021.011.26.11.2023-1
Motor No:	23C721700111B	Pump ID:	20231119-0460
Date of Test:	19-11-2023	Ambient Temperature:	29°C
Relative Humidity:	55%	Water Temperature:	28°C
Rated Speed:	3010 RPM	Operating Voltage:	400±2 V



1. At maximum combined efficiency of 68.00%, the pump delivered 152.97 m^3/hr (1.50 ft^3/sec, 2,549.98 l/min) discharge, at a total head of 124.18 m (407.42 ft) with an input power of 76.10 kW.

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TEST OF DIFFERENT PARAMETERS

Pump Type:	Submersible Pump	Client:	Executive Engineer Shongroh Bivag - 2 Dhaka Wasa, Dhaka
Head:	110.00 m (360.89 ft)	Client's Ref and Date:	46.05.0000.428.07.028.2022-363 Date: 26-10-2023
Discharge:	150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)	Name of Supplier:	Prime Engineering
Pump No:	2302247	MIST (ME) Ref:	23.12.0902.006.021.011.26.11.2023-1
Motor No:	23C721700111B	Pump ID:	20231119-0460
Date of Test:	19-11-2023	Ambient Temperature:	29°C
Relative Humidity:	55%	Water Temperature:	28°C
Rated Speed:	3010 RPM	Operating Voltage:	400±2 V

Pump	
Pump Bowl Diameter	195 mm
Rated Head	110.00 m
Rated Discharge	150.00 m^3/hr
Speed (No Load)	3010 rpm
No of Stages	6
Installation	Vertical Installation
Non-return Valve	Built-in with the pump
Cable Guards and Channels	2 cable guards fitted outside the pump bowl
Motor	
Power Supply	AC 400±2 V, 50 Hz, 3-Phase
Power Factor	0.8
Current at Rated Discharge	126.81 amp
Rated Power	75.63 kW
Starting Method	Star-Delta Starter
Motor Diameter	190 mm
Cable Size (with insulation)	143.35 mm^2
Cable Size (without insulation)	66.19 mm^2
Cable Length	2x 6.0 (flat cable) m

Prepared By	Approved By
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RESULT SHEET

Pump Type:	Submersible Pump	Client:	Executive Engineer Shongroh Bivag - 2 Dhaka Wasa, Dhaka
Head:	110.00 m (360.89 ft)	Client's Ref and Date:	46.05.0000.428.07.028.2022-363 Date: 26-10-2023
Discharge:	150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)	Name of Supplier:	Prime Engineering
Pump No:	2302256	MIST (ME) Ref:	23.12.0902.006.021.011.26.11.2023-2
Motor No:	23C721700096B	Pump ID:	20231120-0461
Date of Test:	20-11-2023	Ambient Temperature:	29°C
Relative Humidity:	57%	Water Temperature:	27°C
Rated Speed:	3005 RPM	Operating Voltage:	400±2 V

No	Discharge (m^3/hr)	Total Head (m)	Input Power (kW)	Combined Efficiency (%)
1	145.34	128.73	77.60	65.68
2	156.58	124.90	78.20	68.13
3	165.26	116.85	78.52	66.99
4	168.91	112.64	79.04	65.58
5	172.59	107.74	79.35	63.84
6	178.77	100.73	79.73	61.53
7	186.97	92.33	79.72	58.99
8	194.60	84.63	78.85	56.90
9	200.78	79.74	78.52	55.55
10	209.16	72.75	78.41	52.87

1. At maximum combined efficiency of 68.13%, the pump delivered 156.58 m^3/hr (1.54 ft^3/sec, 2,610.18 l/min) discharge, at a total head of 124.90 m (409.77 ft) with an input power of 78.20 kW.

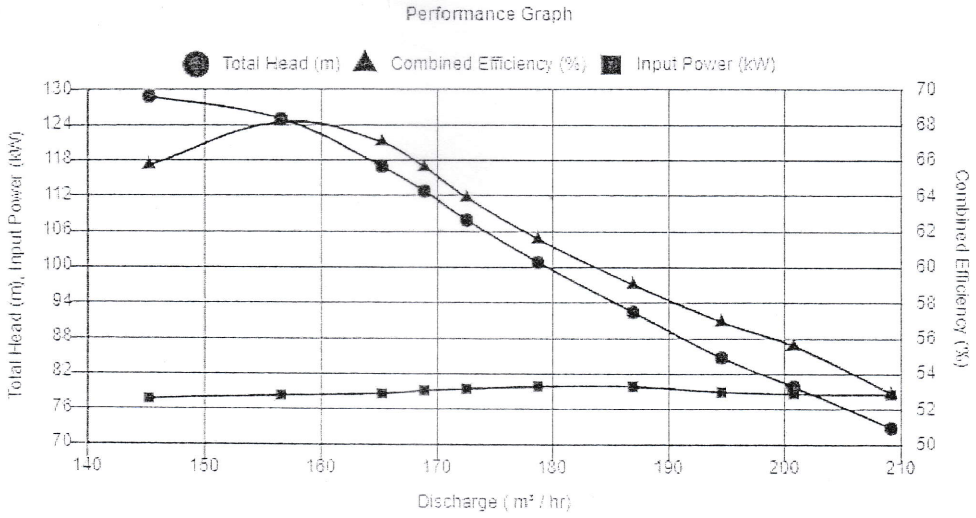
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Consultancy, Advisory and Testing Services (CATS)
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PERFORMANCE CURVE

Pump Type:	Submersible Pump	Client:	Executive Engineer Shongroh Bivag - 2 Dhaka Wasa, Dhaka
Head:	110.00 m (360.89 ft)	Client's Ref and Date:	46.05.0000.428.07.028.2022-363 Date: 26-10-2023
Discharge:	150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)	Name of Supplier:	Prime Engineering
Pump No:	2302256	MIST (ME) Ref:	23.12.0902.006.021.011.26.11.2023-2
Motor No:	23C721700096B	Pump ID:	20231120-0461
Date of Test:	20-11-2023	Ambient Temperature:	29°C
Relative Humidity:	57%	Water Temperature:	27°C
Rated Speed:	3005 RPM	Operating Voltage:	400±2 V



1. At maximum combined efficiency of 68.13%, the pump delivered 156.58 m^3/hr (1.54 ft^3/sec, 2,610.18 l/min) discharge, at a total head of 124.90 m (409.77 ft) with an input power of 78.20 kW.

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TEST OF DIFFERENT PARAMETERS

Pump Type:	Submersible Pump	Client:	Executive Engineer Shongroh Bivag - 2 Dhaka Wasa, Dhaka
Head:	110.00 m (360.89 ft)	Client's Ref and Date:	46.05.0000.428.07.028.2022-363 Date: 26-10-2023
Discharge:	150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)	Name of Supplier:	Prime Engineering
Pump No:	2302256	MIST (ME) Ref:	23.12.0902.006.021.011.26.11.2023-2
Motor No:	23C721700096B	Pump ID:	20231120-0461
Date of Test:	20-11-2023	Ambient Temperature:	29°C
Relative Humidity:	57%	Water Temperature:	27°C
Rated Speed:	3005 RPM	Operating Voltage:	400±2 V

Pump	
Pump Bowl Diameter	195 mm
Rated Head	110.00 m
Rated Discharge	150.00 m^3/hr
Speed (No Load)	3005 rpm
No of Stages	6
Installation	Vertical Installation
Non-return Valve	Built-in with the pump
Cable Guards and Channels	2 cable guards fitted outside the pump bowl
Motor	
Power Supply	AC 400±2 V, 50 Hz, 3-Phase
Power Factor	0.8
Current at Rated Discharge	130.26 amp
Rated Power	78.2 kW
Starting Method	Star-Delta Starter
Motor Diameter	190 mm
Cable Size (with insulation)	143.35 mm^2
Cable Size (without insulation)	66.19 mm^2
Cable Length	2 x 6.0 (flat cable) m

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Motor No: 23D722100037B

RESULT SHEET

Pump Type:	Submersible Pump	Client:	Executive Engineer Shongroh Bivag - 2 Dhaka Wasa, Dhaka
Head:	110.00 m (360.89 ft)	Client's Ref and Date:	46.05.0000.428.07.028.2022-363 Date: 26-10-2023
Discharge:	150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)	Name of Supplier:	Prime Engineering
Pump No:	2302225	MIST (ME) Ref:	23.12.0902.006.021.011.26.11.2023-3
Motor No:	2BC72-17-000106B	Pump ID:	20231120-0483
Date of Test:	20-11-2023	Ambient Temperature:	30°C
Relative Humidity:	58%	Water Temperature:	28°C
Rated Speed:	3005 RPM	Operating Voltage:	400±2 V

No	Discharge (m^3/hr)	Total Head (m)	Input Power (kW)	Combined Efficiency (%)
1	112.31	142.56	71.22	61.24
2	127.83	135.57	73.20	64.49
3	136.43	132.08	74.68	65.73
4	141.77	129.29	74.96	66.61
5	149.13	125.09	75.29	67.50
6	154.97	121.81	75.55	68.07
7	160.15	118.10	76.29	67.54
8	163.46	114.60	76.13	67.03
9	169.07	109.00	76.22	65.86
10	177.50	100.60	76.14	63.89
11	185.30	93.60	75.90	62.25

1. At maximum combined efficiency of 68.07%, the pump delivered 154.97 m^3/hr (1.52 ft^3/sec, 2,583.35 l/min) discharge, at a total head of 121.81 m (399.64 ft) with an input power of 75.55 kW.

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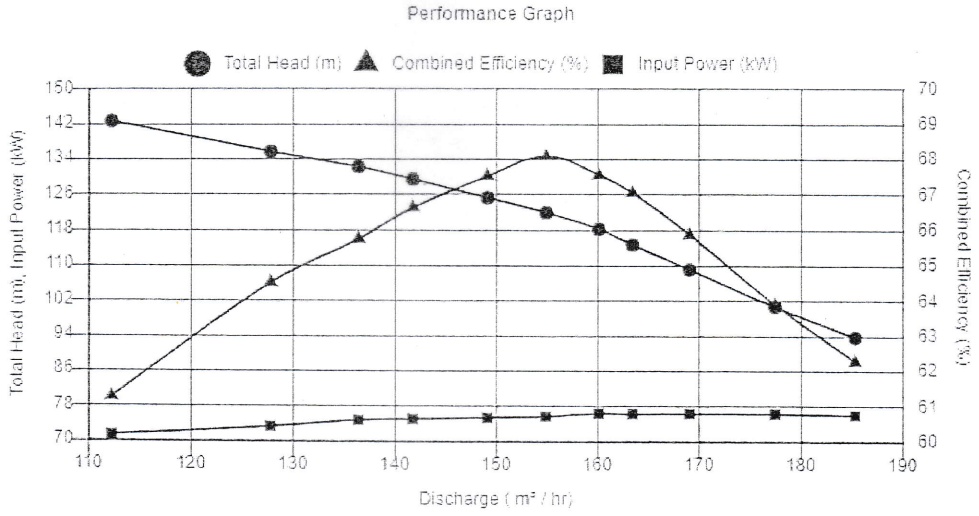
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PERFORMANCE CURVE

Pump Type:	Submersible Pump	Client:	Executive Engineer Shongroh Bivag - 2 Dhaka Wasa, Dhaka
Head:	110.00 m (360.89 ft)	Client's Ref and Date:	46.05.0000.428.07.028.2022-363 Date: 26-10-2023
Discharge:	150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)	Name of Supplier:	Prime Engineering
Pump No:	2302225	MIST (ME) Ref:	23.12.0902.006.021.011.26.11.2023-3_retest
Motor No:	2BC72-17-000106B	Pump ID:	20231120-0483
Date of Test:	20-11-2023	Ambient Temperature:	30°C
Relative Humidity:	58%	Water Temperature:	28°C
Rated Speed:	3005 RPM	Operating Voltage:	400±2 V



1. At maximum combined efficiency of 68.07%, the pump delivered 154.97 m^3/hr (1.52 ft^3/sec, 2,583.35 l/min) discharge, at a total head of 121.81 m (399.64 ft) with an input power of 75.55 kW.

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Military Institute of Science and Technology (MIST)

TEST OF DIFFERENT PARAMETERS

Pump Type:	Submersible Pump	Client:	Executive Engineer Shongroh Bivag - 2 Dhaka Wasa, Dhaka
Head:	110.00 m (360.89 ft)	Client's Ref and Date:	46.05.0000.428.07.028.2022-363 Date: 26-10-2023
Discharge:	150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)	Name of Supplier:	Prime Engineering
Pump No:	2302225	MIST (ME) Ref:	23.12.0902.006.021.011.26.11.2023-3_retest
Motor No:	2BC72-17-000106B	Pump ID:	20231120-0483
Date of Test:	20-11-2023	Ambient Temperature:	30°C
Relative Humidity:	58%	Water Temperature:	28°C
Rated Speed:	3005 RPM	Operating Voltage:	400±2 V

Pump	
Pump Bowl Diameter	195 mm
Rated Head	110.00 m
Rated Discharge	150.00 m^3/hr
Speed (No Load)	3005 rpm
No of Stages	N/A
Installation	Vertical Installation
Non-return Valve	Built in with the pump
Cable Guards and Channels	2X Cable guard fitted outside the pomp bowl
Motor	
Power Supply	AC, 3-Phase, 400±2 V, 50Hz
Power Factor	0.87
Current at Rated Discharge	126.68 amp
Rated Power	75.29 kW
Starting Method	Star Delta Starter
Motor Diameter	190 mm
Cable Size (with insulation)	143.35 mm^2
Cable Size (without insulation)	66.19 mm^2
Cable Length	2X6.0 m

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Faculty of Mechanical Engineering (FME)

Military Institute of Science and Technology (MIST)

RESULT SHEET

Pump Type:	Submersible Pump	Client:	Executive Engineer Shongroh Bivag - 2 Dhaka Wasa, Dhaka
Head:	110.00 m (360.89 ft)	Client's Ref and Date:	46.05.0000.428.07.028.2022-363 Date: 26-10-2023
Discharge:	150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)	Name of Supplier:	Prime Engineering
Pump No:	2302219	MIST (ME) Ref:	23.12.0902.006.021.011.26.11.2023-4
Motor No:	23C721700100B	Pump ID:	20231120-0463
Date of Test:	20-11-2023	Ambient Temperature:	29°C
Relative Humidity:	58%	Water Temperature:	28°C
Rated Speed:	3010 RPM	Operating Voltage:	400±2 V

No	Discharge (m^3/hr)	Total Head (m)	Input Power (kW)	Combined Efficiency (%)
1	112.34	142.69	71.14	61.38
2	129.26	138.17	74.82	65.02
3	145.36	132.59	77.48	67.77
4	158.20	123.50	78.06	68.18
5	164.71	117.55	78.62	67.09
6	169.46	111.59	77.81	66.21
7	172.89	108.09	77.94	65.32
8	176.59	104.24	77.97	64.31
9	187.67	93.04	78.20	60.83
10	193.08	87.09	78.11	58.64
11	200.19	79.39	77.49	55.87
12	205.84	73.09	77.21	53.08

1. At maximum combined efficiency of 68.18%, the pump delivered 158.20 m^3/hr (1.55 ft^3/sec, 2,637.19 l/min) discharge, at a total head of 123.50 m (405.18 ft) with an input power of 78.06 kW.

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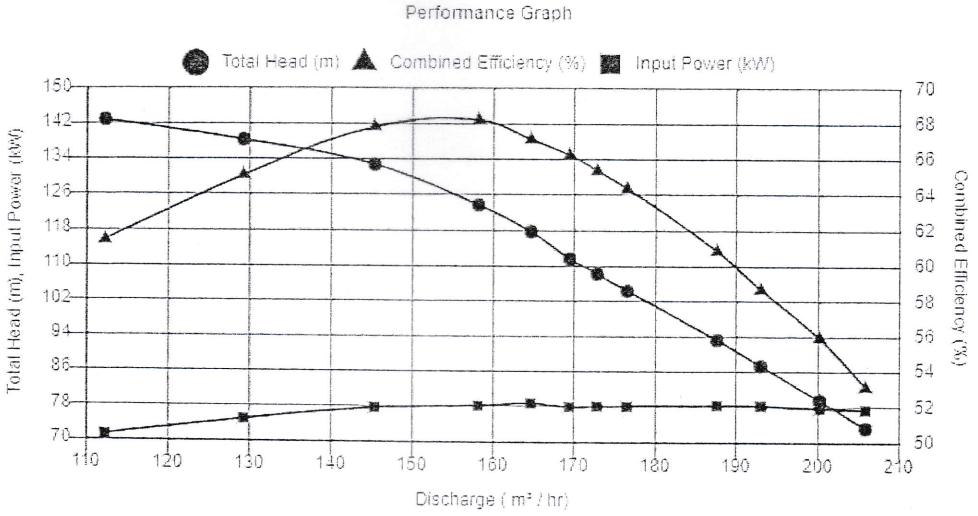
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PERFORMANCE CURVE

Pump Type:	Submersible Pump	Client:	Executive Engineer Shongroh Bivag - 2 Dhaka Wasa, Dhaka
Head:	110.00 m (360.89 ft)	Client's Ref and Date:	46.05.0000.428.07.028.2022-363 Date: 26-10-2023
Discharge:	150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)	Name of Supplier:	Prime Engineering
Pump No:	2302219	MIST (ME) Ref:	23.12.0902.006.021.011.26.11.2023-4
Motor No:	23C721700100B	Pump ID:	20231120-0463
Date of Test:	20-11-2023	Ambient Temperature:	29°C
Relative Humidity:	58%	Water Temperature:	28°C
Rated Speed:	3010 RPM	Operating Voltage:	400±2 V



1. At maximum combined efficiency of 68.18%, the pump delivered 158.20 m^3/hr (1.55 ft^3/sec, 2,637.19 l/min) discharge, at a total head of 123.50 m (405.18 ft) with an input power of 78.06 kW.

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TEST OF DIFFERENT PARAMETERS

Pump Type:	Submersible Pump	Client:	Executive Engineer Shongroh Bivag - 2 Dhaka Wasa, Dhaka
Head:	110.00 m (360.89 ft)	Client's Ref and Date:	46.05.0000.428.07.028.2022-363 Date: 26-10-2023
Discharge:	150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)	Name of Supplier:	Prime Engineering
Pump No:	2302219	MIST (ME) Ref:	23.12.0902.006.021.011.26.11.2023-4
Motor No:	23C721700100B	Pump ID:	20231120-0463
Date of Test:	20-11-2023	Ambient Temperature:	29°C
Relative Humidity:	58%	Water Temperature:	28°C
Rated Speed:	3010 RPM	Operating Voltage:	400±2 V

Pump	
Pump Bowl Diameter	195 mm
Rated Head	110.00 m
Rated Discharge	150.00 m^3/hr
Speed (No Load)	3010 rpm
No of Stages	6
Installation	Vertical Installation
Non-return Valve	Built-in with the pump
Cable Guards and Channels	2 cable guards fitted outside the pump bowl
Motor	
Power Supply	AC 400±2 V, 50 Hz, 3-Phase
Power Factor	0.88
Current at Rated Discharge	130.2 amp
Rated Power	77.48 kW
Starting Method	Star-Delta Starter
Motor Diameter	190 mm
Cable Size (with insulation)	143.35 mm^2
Cable Size (without insulation)	66.19 mm^2
Cable Length	2 x 6.0 (flat cable) m

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RESULT SHEET

Pump Type:	Submersible Pump	Client:	Executive Engineer Shongroh Bivag - 2 Dhaka Wasa, Dhaka
Head:	110.00 m (360.89 ft)	Client's Ref and Date:	46.05.0000.428.07.028.2022-363 Date: 26-10-2023
Discharge:	150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)	Name of Supplier:	Prime Engineering
Pump No:	2302250	MIST (ME) Ref:	23.12.0902.006.021.011.26.11.2023-5
Motor No:	23C721700097B	Pump ID:	20231121-0464
Date of Test:	21-11-2023	Ambient Temperature:	26°C
Relative Humidity:	75%	Water Temperature:	24°C
Rated Speed:	3009 RPM	Operating Voltage:	400±2 V

No	Discharge (m^3/hr)	Total Head (m)	Input Power (kW)	Combined Efficiency (%)
1	92.71	156.70	70.09	56.47
2	102.30	149.69	71.05	58.71
3	113.22	143.39	72.31	61.16
4	129.51	137.82	75.05	64.78
5	144.68	134.35	78.21	67.70
6	151.99	128.05	77.77	68.17
7	156.94	123.85	78.22	67.69
8	163.44	117.54	78.58	66.60
9	170.34	110.19	78.70	64.97
10	178.41	101.43	78.60	62.72
11	184.72	94.43	78.23	60.74
12	193.15	86.74	78.41	58.20
13	200.48	79.74	78.27	55.64
14	206.07	73.44	77.31	53.33

1. At maximum combined efficiency of 68.17%, the pump delivered 151.99 m^3/hr (1.49 ft^3/sec, 2,533.70 l/min) discharge, at a total head of 128.05 m (420.10 ft) with an input power of 77.77 kW.

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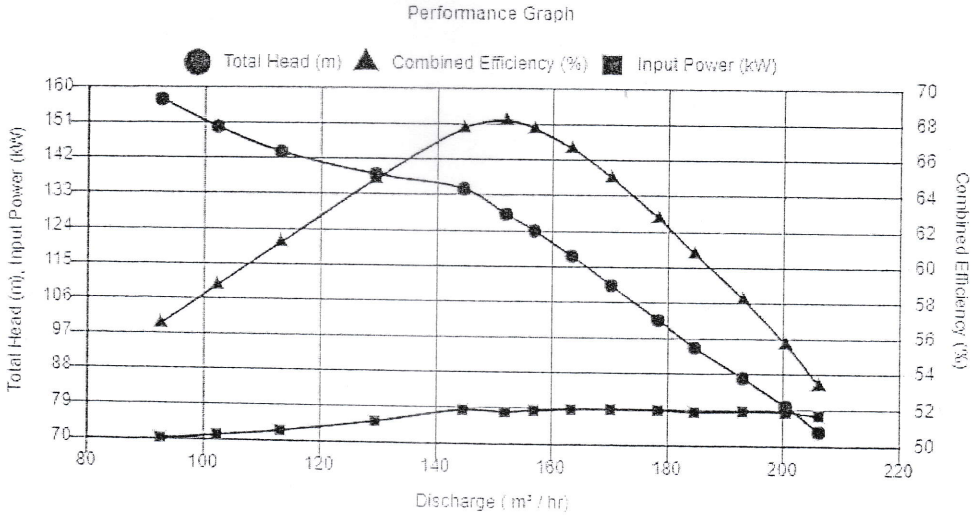
Consultancy, Advisory and Testing Services (CATS)

Faculty of Mechanical Engineering (FME)

Military Institute of Science and Technology (MIST)

PERFORMANCE CURVE

Pump Type:	Submersible Pump	Client:	Executive Engineer Shongroh Bivag - 2 Dhaka Wasa, Dhaka
Head:	110.00 m (360.89 ft)	Client's Ref and Date:	46.05.0000.428.07.028.2022-363 Date: 26-10-2023
Discharge:	150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)	Name of Supplier:	Prime Engineering
Pump No:	2302250	MIST (ME) Ref:	23.12.0902.006.021.011.26.11.2023-5
Motor No:	23C721700097B	Pump ID:	20231121-0464
Date of Test:	21-11-2023	Ambient Temperature:	26°C
Relative Humidity:	75%	Water Temperature:	24°C
Rated Speed:	3009 RPM	Operating Voltage:	400±2 V



1. At maximum combined efficiency of 68.17%, the pump delivered 151.99 m^3/hr (1.49 ft^3/sec, 2,533.70 l/min) discharge, at a total head of 128.05 m (420.10 ft) with an input power of 77.77 kW.

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Military Institute of Science and Technology (MIST)

TEST OF DIFFERENT PARAMETERS

Pump Type:	Submersible Pump	Client:	Executive Engineer Shongroh Bivag - 2 Dhaka Wasa, Dhaka
Head:	110.00 m (360.89 ft)	Client's Ref and Date:	46.05.0000.428.07.028.2022-363 Date: 26-10-2023
Discharge:	150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)	Name of Supplier:	Prime Engineering
Pump No:	2302250	MIST (ME) Ref:	23.12.0902.006.021.011.26.11.2023-5
Motor No:	23C721700097B	Pump ID:	20231121-0464
Date of Test:	21-11-2023	Ambient Temperature:	26°C
Relative Humidity:	75%	Water Temperature:	24°C
Rated Speed:	3009 RPM	Operating Voltage:	400±2 V

Pump	
Pump Bowl Diameter	195 mm
Rated Head	110.00 m
Rated Discharge	150.00 m^3/hr
Speed (No Load)	3009 rpm
No of Stages	6
Installation	Vertical Installation
Non-return Valve	Built-in with the pump
Cable Guards and Channels	2 cable guards fitted outside the pump bowl
Motor	
Power Supply	AC 400±2 V, 50 Hz, 3-Phase
Power Factor	0.87
Current at Rated Discharge	130.57 amp
Rated Power	77.77 kW
Starting Method	Star-Delta Starter
Motor Diameter	190 mm
Cable Size (with insulation)	143.35 mm^2
Cable Size (without insulation)	66.19 mm^2
Cable Length	2 x 6.0 (flat cable) m

Prepared By	Approved By
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Military Institute of Science and Technology (MIST)

RESULT SHEET

Pump Type:	Submersible Pump	Client:	Executive Engineer Shongroh Bivag - 2 Dhaka Wasa, Dhaka
Head:	110.00 m (360.89 ft)	Client's Ref and Date:	46.05.0000.428.07.028.2022-363 Date: 26-10-2023
Discharge:	150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)	Name of Supplier:	Prime Engineering
Pump No:	2302222	MIST (ME) Ref:	23.12.0902.006.021.011.26.11.2023-6
Motor No:	23C721700099B	Pump ID:	20231121-0465
Date of Test:	21-11-2023	Ambient Temperature:	27°C
Relative Humidity:	65%	Water Temperature:	26°C
Rated Speed:	3009 RPM	Operating Voltage:	400±2 V

No	Discharge (m^3/hr)	Total Head (m)	Input Power (kW)	Combined Efficiency (%)
1	105.05	149.70	71.28	60.10
2	116.49	142.70	72.75	62.25
3	136.27	135.73	76.41	65.94
4	147.74	130.84	77.70	67.78
5	152.92	127.49	77.96	68.12
6	156.67	123.42	78.01	67.53
7	161.51	118.52	78.49	66.44
8	171.21	108.86	79.03	64.24
9	182.40	97.23	78.62	61.45
10	188.95	90.58	78.20	59.62
11	198.21	80.08	76.78	56.32
12	204.87	73.01	76.10	53.54

1. At maximum combined efficiency of 68.12%, the pump delivered 152.92 m^3/hr (1.50 ft^3/sec, 2,549.23 l/min) discharge, at a total head of 127.49 m (418.26 ft) with an input power of 77.96 kW.

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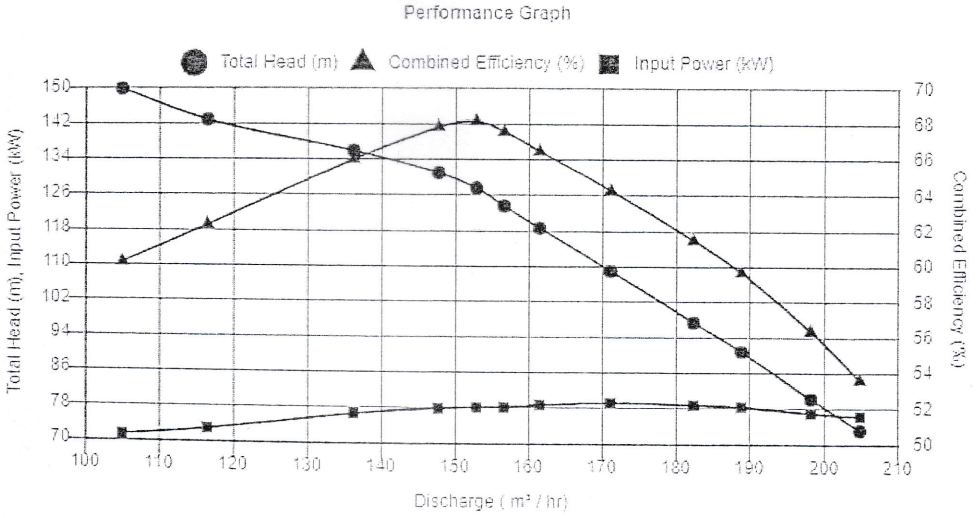
Consultancy, Advisory and Testing Services (CATS)

Faculty of Mechanical Engineering (FME)

Military Institute of Science and Technology (MIST)

PERFORMANCE CURVE

Pump Type:	Submersible Pump	Client:	Executive Engineer Shongroh Bivag - 2 Dhaka Wasa, Dhaka
Head:	110.00 m (360.89 ft)	Client's Ref and Date:	46.05.0000.428.07.028.2022-363 Date: 26-10-2023
Discharge:	150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)	Name of Supplier:	Prime Engineering
Pump No:	2302222	MIST (ME) Ref:	23.12.0902.006.021.011.26.11.2023-6
Motor No:	23C721700099B	Pump ID:	20231121-0465
Date of Test:	21-11-2023	Ambient Temperature:	27°C
Relative Humidity:	65%	Water Temperature:	26°C
Rated Speed:	3009 RPM	Operating Voltage:	400±2 V



1. At maximum combined efficiency of 68.12%, the pump delivered 152.92 m^3/hr (1.50 ft^3/sec, 2,549.23 l/min) discharge, at a total head of 127.49 m (418.26 ft) with an input power of 77.96 kW.

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TEST OF DIFFERENT PARAMETERS

Pump Type:	Submersible Pump	Client:	Executive Engineer Shongroh Bivag - 2 Dhaka Wasa, Dhaka
Head:	110.00 m (360.89 ft)	Client's Ref and Date:	46.05.0000.428.07.028.2022-363 Date: 26-10-2023
Discharge:	150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)	Name of Supplier:	Prime Engineering
Pump No:	2302222	MIST (ME) Ref:	23.12.0902.006.021.011.26.11.2023-6
Motor No:	23C721700099B	Pump ID:	20231121-0465
Date of Test:	21-11-2023	Ambient Temperature:	27°C
Relative Humidity:	65%	Water Temperature:	26°C
Rated Speed:	3009 RPM	Operating Voltage:	400±2 V

Pump	
Pump Bowl Diameter	195 mm
Rated Head	110.00 m
Rated Discharge	150.00 m^3/hr
Speed (No Load)	3009 rpm
No of Stages	6
Installation	Vertical Installation
Non-return Valve	Built-in with the pump
Cable Guards and Channels	2 cable guards fitted outside the pump bowl
Motor	
Power Supply	AC 400±2 V, 50 Hz, 3-Phase
Power Factor	0.87
Current at Rated Discharge	130.9 amp
Rated Power	78.96 kW
Starting Method	Star-Delta Starter
Motor Diameter	190 mm
Cable Size (with insulation)	143.35 mm^2
Cable Size (without insulation)	66.19 mm^2
Cable Length	2 x 6.0 (flat cable) m

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RESULT SHEET

Pump Type:	Submersible Pump	Client:	Executive Engineer Shongroh Bivag - 2 Dhaka Wasa, Dhaka
Head:	110.00 m (360.89 ft)	Client's Ref and Date:	46.05.0000.428.07.028.2022-363 Date: 26-10-2023
Discharge:	150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)	Name of Supplier:	Prime Engineering
Pump No:	2302241	MIST (ME) Ref:	23.12.0902.006.021.011.26.11.2023-7
Motor No:	22M720900075B	Pump ID:	20231121-0466
Date of Test:	21-11-2023	Ambient Temperature:	27°C
Relative Humidity:	60%	Water Temperature:	26°C
Rated Speed:	3010 RPM	Operating Voltage:	400±2 V

No	Discharge (m^3/hr)	Total Head (m)	Input Power (kW)	Combined Efficiency (%)
1	108.77	148.30	72.99	60.20
2	117.76	143.05	73.89	62.11
3	138.80	136.30	77.63	66.39
4	150.83	131.56	79.13	68.31
5	163.10	119.65	79.31	67.03
6	165.48	118.26	80.07	66.58
7	168.57	114.47	79.74	65.92
8	180.84	102.43	79.72	63.30
9	189.40	92.34	78.12	60.99
10	196.69	86.75	78.71	59.06
11	203.66	79.75	78.11	56.65
12	209.41	72.75	77.23	53.74

1. At maximum combined efficiency of 68.31%, the pump delivered 150.83 m^3/hr (1.48 ft^3/sec, 2,514.39 l/min) discharge, at a total head of 131.56 m (431.62 ft) with an input power of 79.13 kW.

Prepared By	Approved By
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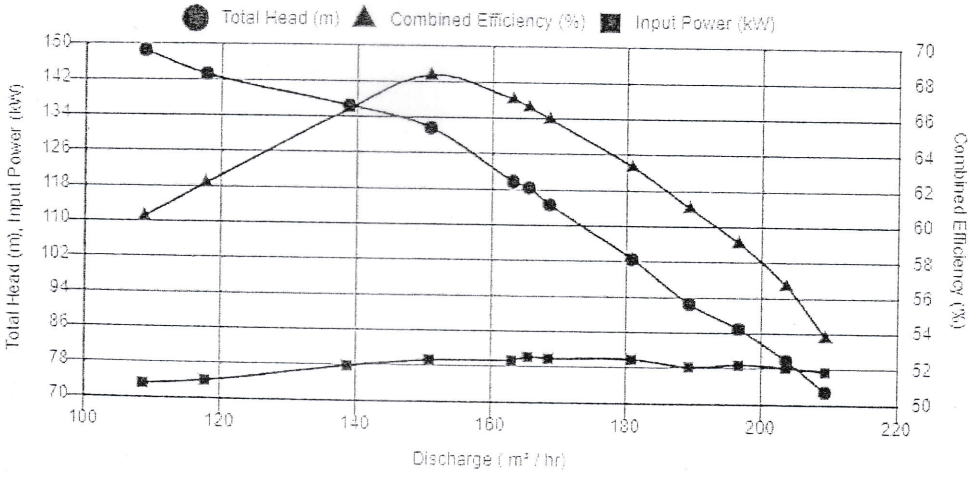
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Consultancy, Advisory and Testing Services (CATS)
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Military Institute of Science and Technology (MIST)

PERFORMANCE CURVE

Pump Type:	Submersible Pump	Client:	Executive Engineer Shongroh Bivag - 2 Dhaka Wasa, Dhaka
Head:	110.00 m (360.89 ft)	Client's Ref and Date:	46.05.0000.428.07.028.2022-363 Date: 26-10-2023
Discharge:	150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)	Name of Supplier:	Prime Engineering
Pump No:	2302241	MIST (ME) Ref:	23.12.0902.006.021.011.26.11.2023-7
Motor No:	22M720900075B	Pump ID:	20231121-0466
Date of Test:	21-11-2023	Ambient Temperature:	27°C
Relative Humidity:	60%	Water Temperature:	26°C
Rated Speed:	3010 RPM	Operating Voltage:	400±2 V

Performance Graph



1. At maximum combined efficiency of 68.31%, the pump delivered 150.83 m^3/hr (1.48 ft^3/sec, 2,514.39 l/min) discharge, at a total head of 131.56 m (431.62 ft) with an input power of 79.13 kW.

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TEST OF DIFFERENT PARAMETERS

Pump Type:	Submersible Pump	Client:	Executive Engineer Shongroh Bivag - 2 Dhaka Wasa, Dhaka
Head:	110.00 m (360.89 ft)	Client's Ref and Date:	46.05.0000.428.07.028.2022-363 Date: 26-10-2023
Discharge:	150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)	Name of Supplier:	Prime Engineering
Pump No:	2302241	MIST (ME) Ref:	23.12.0902.006.021.011.26.11.2023-7
Motor No:	22M720900075B	Pump ID:	20231121-0466
Date of Test:	21-11-2023	Ambient Temperature:	27°C
Relative Humidity:	60%	Water Temperature:	26°C
Rated Speed:	3010 RPM	Operating Voltage:	400±2 V

Pump	
Pump Bowl Diameter	195 mm
Rated Head	110.00 m
Rated Discharge	150.00 m^3/hr
Speed (No Load)	3010 rpm
No of Stages	6
Installation	Vertical Installation
Non-return Valve	Built-in with the pump
Cable Guards and Channels	2 cable guards fitted outside the pump bowl
Motor	
Power Supply	AC 400±2 V, 50 Hz, 3-Phase
Power Factor	0.87
Current at Rated Discharge	131.3 amp
Rated Power	79.13 kW
Starting Method	Star-Delta Starter
Motor Diameter	190 mm
Cable Size (with insulation)	143.35 mm^2
Cable Size (without insulation)	66.19 mm^2
Cable Length	2 x 6.0 (flat cable) m

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Military Institute of Science and Technology (MIST)

RESULT SHEET

Pump Type:	Submersible Pump	Client:	Executive Engineer Shongroh Bivag - 2 Dhaka Wasa, Dhaka
Head:	110.00 m (360.89 ft)	Client's Ref and Date:	46.05.0000.428.07.028.2022-363 Date: 26-10-2023
Discharge:	150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)	Name of Supplier:	Prime Engineering
Pump No:	2302246	MIST (ME) Ref:	23.12.0902.006.021.011.26.11.2023-8
Motor No:	23C721700112B	Pump ID:	20231122-0467
Date of Test:	22-11-2023	Ambient Temperature:	31°C
Relative Humidity:	70%	Water Temperature:	29°C
Rated Speed:	3010 RPM	Operating Voltage:	400±2 V

No	Discharge (m^3/hr)	Total Head (m)	Input Power (kW)	Combined Efficiency (%)
1	110.72	139.17	70.86	59.24
2	127.21	138.51	73.51	65.30
3	148.63	128.74	76.83	67.85
4	154.35	125.24	77.24	68.18
5	158.60	121.74	77.73	67.67
6	170.62	109.84	78.10	65.37
7	180.52	100.74	78.09	63.44
8	188.33	93.74	78.08	61.60
9	195.33	86.75	77.39	59.64
10	200.76	81.15	76.89	57.72
11	207.59	74.15	76.43	54.86

1. At maximum combined efficiency of 68.18%, the pump delivered 154.35 m^3/hr (1.51 ft^3/sec, 2,573.08 l/min) discharge, at a total head of 125.24 m (410.90 ft) with an input power of 77.24 kW.

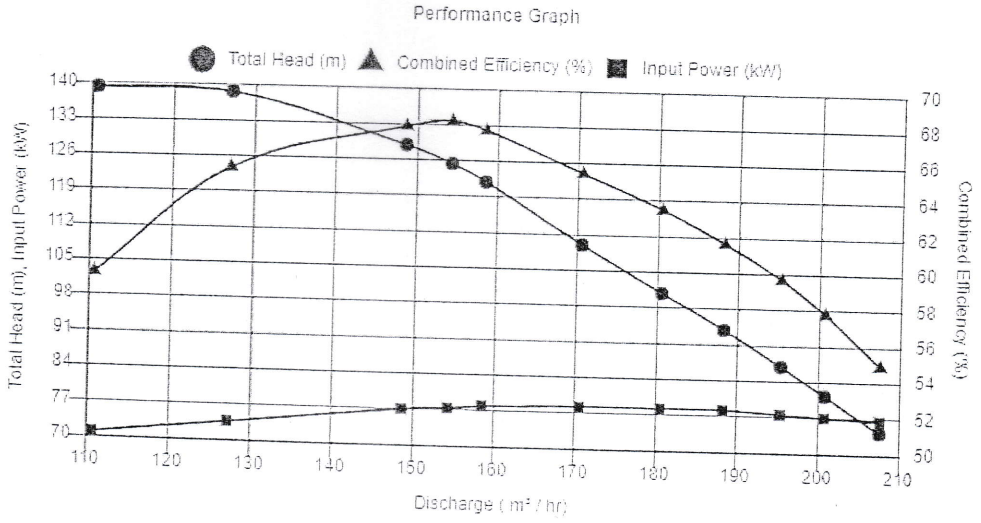
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PERFORMANCE CURVE

Pump Type:	Submersible Pump	Client:	Executive Engineer Shongroh Bivag - 2 Dhaka Wasa, Dhaka
Head:	110.00 m (360.89 ft)	Client's Ref and Date:	46.05.0000.428.07.028.2022-363 Date: 26-10-2023
Discharge:	150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)	Name of Supplier:	Prime Engineering
Pump No:	2302246	MIST (ME) Ref:	23.12.0902.006.021.011.26.11.2023-8
Motor No:	23C721700112B	Pump ID:	20231122-0467
Date of Test:	22-11-2023	Ambient Temperature:	31°C
Relative Humidity:	70%	Water Temperature:	29°C
Rated Speed:	3010 RPM	Operating Voltage:	400±2 V



1. At maximum combined efficiency of 68.18%, the pump delivered 154.35 m^3/hr (1.51 ft^3/sec, 2,573.08 l/min) discharge, at a total head of 125.24 m (410.90 ft) with an input power of 77.24 kW.

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TEST OF DIFFERENT PARAMETERS

Pump Type:	Submersible Pump	Client:	Executive Engineer Shongroh Bivag - 2 Dhaka Wasa, Dhaka
Head:	110.00 m (360.89 ft)	Client's Ref and Date:	46.05.0000.428.07.028.2022-363 Date: 26-10-2023
Discharge:	150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)	Name of Supplier:	Prime Engineering
Pump No:	2302246	MIST (ME) Ref:	23.12.0902.006.021.011.26.11.2023-8
Motor No:	23C721700112B	Pump ID:	20231122-0467
Date of Test:	22-11-2023	Ambient Temperature:	31°C
Relative Humidity:	70%	Water Temperature:	29°C
Rated Speed:	3010 RPM	Operating Voltage:	400±2 V

Pump	
Pump Bowl Diameter	195 mm
Rated Head	110.00 m
Rated Discharge	150.00 m^3/hr
Speed (No Load)	3010 rpm
No of Stages	6
Installation	Vertical Installation
Non-return Valve	Built-in with the pump
Cable Guards and Channels	2 cable guards fitted outside the pump bowl
Motor	
Power Supply	AC 400±2 V, 50 Hz, 3-Phase
Power Factor	0.87
Current at Rated Discharge	128.31 amp
Rated Power	76.83 kW
Starting Method	Star-Delta Starter
Motor Diameter	190 mm
Cable Size (with insulation)	143.35 mm^2
Cable Size (without insulation)	66.19 mm^2
Cable Length	2 x 6.0 (flat cable) m

Prepared By	Approved By
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RESULT SHEET

Pump Type:	Submersible Pump	Client:	Executive Engineer Shongroh Bivag - 2 Dhaka Wasa, Dhaka
Head:	110.00 m (360.89 ft)	Client's Ref and Date:	46.05.0000.428.07.028.2022-363 Date: 26-10-2023
Discharge:	150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)	Name of Supplier:	Prime Engineering
Pump No:	2302230	MIST (ME) Ref:	23.12.0902.006.021.011.26.11.2023-9
Motor No:	23C721700107B	Pump ID:	20231122-0468
Date of Test:	22-11-2023	Ambient Temperature:	26°C
Relative Humidity:	67%	Water Temperature:	25°C
Rated Speed:	3010 RPM	Operating Voltage:	400±2 V

No	Discharge (m^3/hr)	Total Head (m)	Input Power (kW)	Combined Efficiency (%)
1	103.16	149.69	70.50	59.67
2	128.46	138.23	74.31	65.10
3	146.59	129.72	76.38	67.82
4	152.56	125.59	76.67	68.08
5	161.33	117.04	76.53	67.21
6	165.89	112.91	77.05	66.23
7	171.07	106.33	76.51	64.76
8	177.63	101.01	77.71	62.90
9	186.24	92.33	77.46	60.47
10	194.37	85.19	77.30	58.36
11	200.64	79.74	76.99	56.61
12	206.93	73.44	75.70	54.69

1. At maximum combined efficiency of 68.08%, the pump delivered 152.56 m^3/hr (1.50 ft^3/sec, 2,543.17 l/min) discharge, at a total head of 125.59 m (412.03 ft) with an input power of 76.67 kW.

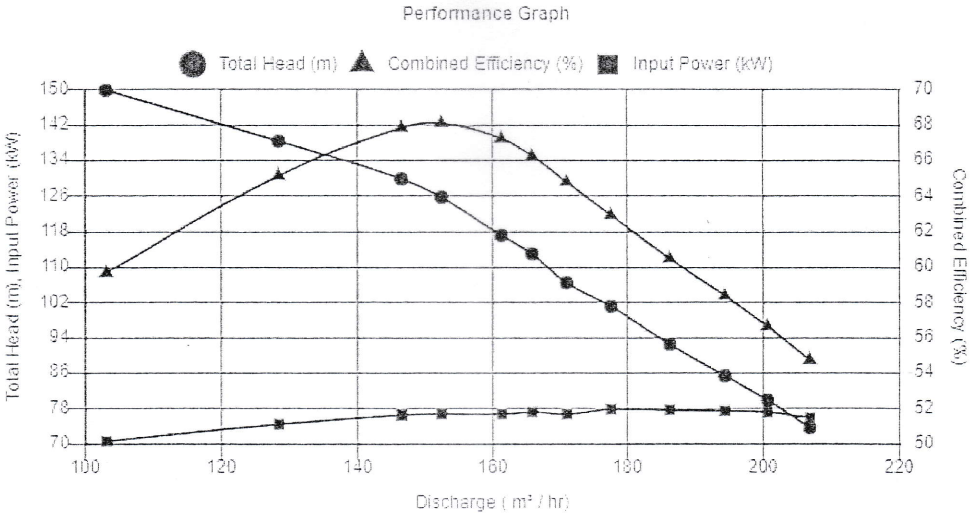
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Military Institute of Science and Technology (MIST)

PERFORMANCE CURVE

Pump Type:	Submersible Pump	Client:	Executive Engineer Shongroh Bivag - 2 Dhaka Wasa, Dhaka
Head:	110.00 m (360.89 ft)	Client's Ref and Date:	46.05.0000.428.07.028.2022-363 Date: 26-10-2023
Discharge:	150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)	Name of Supplier:	Prime Engineering
Pump No:	2302230	MIST (ME) Ref:	23.12.0902.006.021.011.26.11.2023-9
Motor No:	23C721700107B	Pump ID:	20231122-0468
Date of Test:	22-11-2023	Ambient Temperature:	26°C
Relative Humidity:	67%	Water Temperature:	25°C
Rated Speed:	3010 RPM	Operating Voltage:	400±2 V



1. At maximum combined efficiency of 68.08%, the pump delivered 152.56 m^3/hr (1.50 ft^3/sec, 2,543.17 l/min) discharge, at a total head of 125.59 m (412.03 ft) with an input power of 76.67 kW.

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TEST OF DIFFERENT PARAMETERS

Pump Type:	Submersible Pump	Client:	Executive Engineer Shongroh Bivag - 2 Dhaka Wasa, Dhaka
Head:	110.00 m (360.89 ft)	Client's Ref and Date:	46.05.0000.428.07.028.2022-363 Date: 26-10-2023
Discharge:	150.00 m^3/hr (1.47 ft^3/sec, 2,500.50 l/min)	Name of Supplier:	Prime Engineering
Pump No:	2302230	MIST (ME) Ref:	23.12.0902.006.021.011.26.11.2023-9
Motor No:	23C721700107B	Pump ID:	20231122-0468
Date of Test:	22-11-2023	Ambient Temperature:	26°C
Relative Humidity:	67%	Water Temperature:	25°C
Rated Speed:	3010 RPM	Operating Voltage:	400±2 V

Pump	
Pump Bowl Diameter	195 mm
Rated Head	110.00 m
Rated Discharge	150.00 m^3/hr
Speed (No Load)	3010 rpm
No of Stages	6
Installation	Vertical Installation
Non-return Valve	Built-in with the pump
Cable Guards and Channels	2 cable guards fitted outside the pump bowl
Motor	
Power Supply	AC 400±2 V, 50 Hz, 3-Phase
Power Factor	0.87
Current at Rated Discharge	128.66 amp
Rated Power	76.67 kW
Starting Method	Star-Delta Starter
Motor Diameter	190 mm
Cable Size (with insulation)	143.35 mm^2
Cable Size (without insulation)	66.19 mm^2
Cable Length	2 x 6.0 (flat cable) m

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