

MACHINOGRAPH

30+ years of Service to the
Pharmaceutical & Chemical Industries



Our Certifications



IS 6312



IIP



UN Code



ERRL



ISO 9001: 2015

Manufacturing Sites:

Bharuch (Gujarat), Tarapur (Maharashtra), Murbad (Maharashtra)

Director's Message

I am thrilled to extend a warm welcome to each one of you to the Machinograph group of companies. As we embark on this journey together, I would like to share our vision and values that will guide us in our pursuit of excellence.

Our state-of-the-art, PLC-controlled production facilities ensure a seamless and systematic approach to manufacturing, delivering a wide range of packaging products that stand out as the optimal solution for various industries.

We understand the significance of customer satisfaction and are unwavering in our commitment to identifying and meeting their specific requirements.

Our focus on delivering high-quality products within the stipulated time frame is a testament to this dedication.

Thank you for being part of the Machinograph family.

Warm regards,

Managing Director

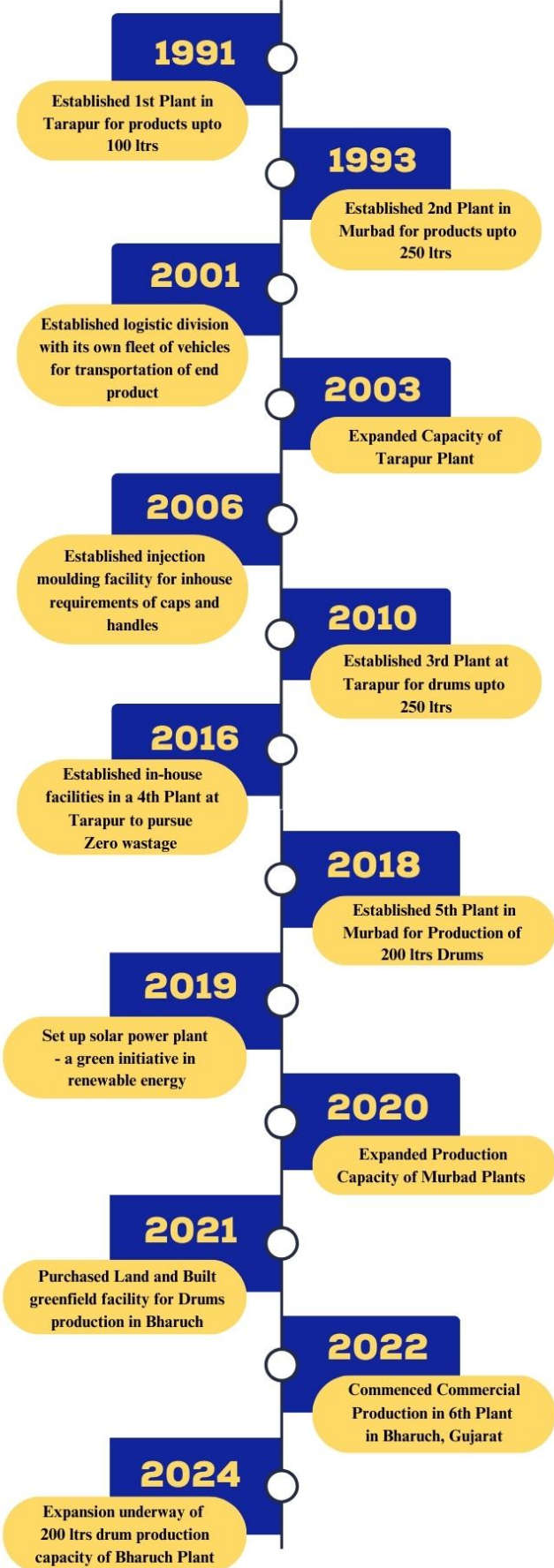
Introduction

Welcome to the world of Machinograph, a pioneering force in the manufacturing of high-quality plastic drums ranging from 20 liters to 250 liters, made from HM/HDPE. Machinograph Group of Companies has been under the expert guidance of the Agrawal family for the past 30 years. With a cumulative industry experience of 50 years.

Machinograph's management has a dynamic cadre of young professionals, skilled technicians, and an efficient workforce, all working together seamlessly in a closely-knit and harmonious environment. At every plant, vigilant teams of young engineers oversee operations with precision, ensuring the continuous production of high-quality drums, maintaining optimal quality, productivity, and efficient plant maintenance around the clock.

Our workforce strives to deliver unparalleled service to numerous customers nationwide, meeting their specific needs and timelines. Upholding the mantra, "**The Customer is King,**" Machinograph places customer satisfaction at the forefront. Client list comprising industry leaders in various sectors. A comprehensive inventory of plastic drums of various sizes and types is meticulously maintained, ensuring prompt service when required. Operating from a centrally located office in the heart of Mumbai, the financial capital of India, Machinograph is managed by a hand-picked team equipped with state-of-the-art communication and office technology. This setup enables efficient responses to the company's needs and obligations to customers and all stakeholders. The central office serves as the hub for sales, accounts, and administration.

MACHINOGRAPH TIMELINE





Narrow Mouth Drums

Description	200 N.M	210 N.M	235 N.M	250 N.M
Nominal Capacity	200 ltrs	210 ltrs	235 ltrs	250 ltrs
Brimful Capacity	210 ltrs	220 ltrs	240 ltrs	260 ltrs
Body Diameter	588 mm	588 mm	588 mm	588mm
Height	882 mm	925 mm	1030 mm	1060 mm
Body Colour	Blue	Blue	Blue	Blue
Cap Inside diameter	50 mm X 2 nos	50 mm X 2 nos	50 mm X 2 nos	50 mm X 2 nos
Material	HM HDPE	HM HDPE	HM HDPE	HM HDPE

- ❑ Tare weight of the drum can be adjusted to suit specific requirement
- ❑ Standard: IS: 6312 / UNO / IMDG / ICAO CODE



Open Mouth Drums

Description	210 Open mouth	235 open mouth	250 open mouth
Nominal Capacity	210 ltrs	235 ltrs	250 ltrs
Brimful Capacity	220 ltrs	240 ltrs	255 ltrs
Body Diameter	588 mm	588 mm	588mm
Height	925 mm	1010 mm	1060 mm
Body Colour	Blue	Blue	Blue
Cap Colour	Black	Black	Black
Cap	525 mm	525 mm	525 mm
Material	HM HDPE	HM HDPE	HM HDPE

- ❑ Tare weight of the drum can be adjusted to suit specific requirement.
- ❑ Standard: IS: 6312 / UNO / IMDG / ICAO CODE



Small Size Open Mouth Drums

MODEL TYPE	120 Ltr FOM	120 Ltr FOM	100 Ltr FOM	80 Ltr Dholkl	70 Ltr FOM	65 Ltr FOM	60 Ltr Dholki	
SIZE in Ltrs	120	120	100	80	70	65	60	
Brimfull capacity In Ltrs.(water)	123	123	116	85	72.5	67.5	62	
Tare Wt. kgs.(± 3%)	5.0	5.2	5.0	3.0	3.0	3.0	2.8	
Height mm (with cap) ±10mm)	780	780	737	705	700	657	667	
Body Diameter mm (±10mm)	473	473	473	425	387	387	374	
Cap (± 2mm)	425	425	425	355	355	355	355	
Mouth Inslde Diameter (±2mm)	390	390	390	320	320	320	320	
Thickness (in mm) at (± 0.5mm)	Top	3.3	3.4	3.2	2.4	2.5	2.6	2.6
	Middle	2.2	2.5	2.4	2.2	2.3	2.4	2.0
	Bottom	2.5	2.8	3.1	2.1	2.6	2.5	3.0

MODEL TYPE	55 Ltr FOM	50 Ltr Dholkl	45 Ltr FOM	38 Ltr FOM	35 Ltr FOM	30 Ltr Dholki	20 Ltr Dholki	
SIZE in Ltrs	55	50	45	38	35	30	20	
Brimfull capacity In Ltrs.(water)	58	52	47	41	38	35	23	
Tare Wt. kgs.± 3%)	2.8	2.5	2.2	2.2	2.0	1.8	1.6	
Height mm (with cap) ± 10mm)	566	575	555	530	475	535	455	
Body Diameter mm (± 10mm)	387	355	348	348	348	322	285	
Cap (± 2mm)	355	355	355	355	355	280	280	
Mouth Inslde Diameter (± 2mm)	320	320	320	320	320	250	250	
Thickness (in mm) at (± 0.5mm)	Top	2.7	2.6	2.1	1.5	1.8	2.1	1.6
	Middle	2.5	2.0	2.0	2.5	1.5	2.5	2.1
	Bottom	2.6	2.5	2.3	1.6	2.0	2.8	2.4

- Tare weight of the drum can be adjusted to suit specific requirement.
- Standard: IS: 6312 / UNO / IMDG / ICAO CODE



Small Size Narrow Mouth Drums

MODEL TYPE	100 Ltr NM (Round)	50 Ltr NM (Round)	50 Ltr NM (Rocket)	35 Ltr NM Jerrycan	30 Ltr NM Jerrycan	25Ltr NM Jerrycan	20 Ltr NM Jerrycan	
SIZE in Ltrs	100	50	50	35	30	25	20	
Brimfull capacity In Ltrs.(water)	110	54	58	38	33	26.5	24	
Tare Wt. kgs.± 3%)	5	2.5	2.5	1.8	1.6	1.4	1.2	
Height mm (with cap) ± 10mm)	680	545	583	470	420	463	405	
Body Diameter mm (± 10mm)	470	388	415 x 335	340 X 290	340 X 290	280 X 250	280 X 250	
Cap (±2mm)	50 & 25	50 & 25	50	50	50	50	50	
Mouth Inslde Diameter (± 2mm)	20 & 25	50 & 25	50	40	40	40	40	
Thickness (in mm) at (± 0.5mm)	Top	3.5	2.6	2.4	2.3	1.8	2.4	1.7
	Middle	3	2.4	3.1	3.0	3.2	3.8	2.4
	Bottom	3.6	3.0	3.2	2.5	2.0	2.7	2.1

- ❑ Tare weight of the drum can be adjusted to suit specific requirement.
- ❑ Standard: IS: 6312 / UNO / IMDG / ICAO CODE



Small Size Wide Mouth Drums

MODEL TYPE	120 Ltr WM (8'') Round	100 Ltr WM (8'') Round	50 Ltr WM (6'') Round	30 Ltr WM (6'') Round	
SIZE in Ltrs	120	100	50	30	
Brimfull capacity In Ltrs.(water)	130	110	58	35	
Tare Wt. kgs.± 3%)	5.2	5.0	2.5	2.5	
Height mm (with cap) ± 10mm)	780	680	510	420	
Body Diameter mm (± 10mm)	470	470	388	350	
Cap (±2mm)	259	259	150	150	
Mouth Inside Diameter (± 2mm)	220	220	138	138	
Thickness (in mm) at (± 0.5mm)	Top	3.5	3.5	2.6	2.3
	Middle	3.0	3.0	2.4	2.2
	Bottom	3.6	3.6	3.0	3.0

- ❑ Tare weight of the drum can be adjusted to suit specific requirement.
- ❑ Standard: IS: 6312 / UNO / IMDG / ICAO CODE



CERTIFICATE

MACHINOGRAPH COMPANY

NEW SURVEY NO. 172, (OLD SURVEY NO. 222/3), VILLAGE KALADARA, TAL. VAGRA, DIST-BHARUCH, GUJARAT-392130

has implemented and maintains a **Quality Management System**

MANUFACTURE & SUPPLY OF POLY CONTAINERS (HM / HDPE BARRELS)

Non-applicable Clauses : 8.3

EA 14

Through an audit, documented in a report, it was verified that the management System fulfills the requirements of the following standard:

ISO 9001:2015

Certificate registration no : QA-D/IND/9001/0971
Valid from : 29.04.2022
Valid until : 28.04.2025
Date of original certification : 29.04.2022
Certification cycle : 3 years

Overseas Operation Manager
Begüm ADAKAN
Stuttgart 2022.04.29

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Deutsche
Akkreditierungsstelle
D-ZM-18949-01-00



ERRL PTE LTD

(Internationally Recognised Packaging Material & Environmental Monitoring Testing Lab)

Corporate Address: 1 Sunview Road, #06-16, EcoTech @ Sunview, Singapore – 627615
Website: <http://www.rrl.co.in> | E-mail id: contact@rrl.co.in



UN CERTIFICATE

ERRL certifies that the samples of the design type described below have been tested in accordance with provisions of United Nations Recommendations of Transport of Dangerous goods (22nd Revised Edition: 2021), Chapter 6, International Maritime Dangerous Goods (IMDG) – (2020 Edition) International Civil Aviation Organization (ICAO) – (2021 – 22 Edition), International Air Transport Association (IATA) – (63rd Edition) - 2022

Name and address of customer

MACHINOGRAPH COMPANY
405, MAKER BHAVAN - III, 21, NEW MARINE LINES,
CHURCHGATE, MUMBAI - 400 020, INDIA.

Test Report No. MACH/ERRL/2383/23

Date of Issue 27-JAN-2023

Date of Sample Receipt 27-DEC-2022

Description of Sample 235 LTR NON REMOVABLE HEAD TYPE HDPE DRUM

UN Marking allotted



1H1/Y1.2/100/*
SGP/MACH1407

*** To be replaced last two digits of
year of manufacturing

Package Identification Code

1H1 - NON REMOVABLE HEAD TYPE PLASTIC DRUM

Performance Standard

Packaging meets Packing Group II and III

Maximum Relative Density

1.2

Internal Test Pressure

100 kPa

Tare Weight

8.70 KG

Number & Condition of Sample received

16 Samples in Satisfactory condition

Country Authorizing allocation of Mark

Singapore

Manufacturer Name

M/S. MACHINOGRAPH COMPANY



Summary of Test Results

UN / Test	UN Reference	Test condition	Test Method	Test Date	Test Results
Drop Test	6.1.5.3	1.2 m	UN Recommendation	03.01.2023	PASS
Stack Test	6.1.5.6	556 kg – 28 Days	ISO 2234:2000	29.12.2022	PASS
Leak proofness Test	6.1.5.4	20 kPa – 5 min	UN Recommendation	09.01.2023	PASS
Hydro static Test	6.1.5.5	100 kPa – 30 min	UN Recommendation	13.01.2023	PASS
Dimensions ⁵	590 x 590 x 1010 mm				

Packaging of the design type described above shall bear the UN Marking. Marking should be legible, durable and readily visible. It is the responsibility of the end user to determine authorization for use under these regulations. The use of other packaging methods or components other than those documented in this report may render this certification invalid. During providing statement of conformity as per specification addressed in first line, measurement uncertainty (@ 95% confidence level) is not taken into consideration, as agreed with the customer.

Date of Original Issue : 27-JAN-2023

Date of Last Revision : ----

Date of Expiry : 27-JAN-2024

F/OPN/11, Revision No.00

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Approved by Technical Manager
ERRL PTE LTD

Testing Procedure of 210Ltr / 235Ltr

1. Leakage Test:



The Drums are filled with water up to its nominal capacity not up to the brimful capacity of water and the caps are tightened.

The Drums is then kept inverted on a clean concrete and dry floor. If up to 24 Hours, there is no water leakage in the mouth of drum then the drum leakage test is passed.

2. Stacking Test:

Two Drums are filled with water up to its nominal capacity not up to the brimful capacity of water and the caps are tightened.

One water filled drum is kept on another water filled drum for up to 28 days. Periodic observations are made and if no bulging is seen in the body of drums, then the Drum stacking test is passed.



3. Drop Test:



Drums are filled with water up to (95%) its nominal capacity not up to the brimful capacity of water and the caps are tightened.

The filled drum is lifted up to 1.2 meters by a lifting machine. Each drum is dropped from 1.2 meters, once horizontally and once vertically at any required angle. There should be no leakages, no ruptures; from the drum then the drum drop test is passed. (Note: Each drum will be dropped only once).

4. Hydraulic Pressure Test:

The drum is filled with water with a gap of 5 ltrs. The cap is tightened only on one side, and the M.S nipple is fitted on other side. Thereafter the hydraulic machine pipe is joined with the M.S nipple. The hydraulic pump is pressed up to 5.2 psi and then observed for leakages. If no leakages are found then the hydraulic pressure test is passed.



5. Tilting & Rolling Test:

The drums are filled with water up to its nominal Capacity not up to the brimful capacity of water and the caps are tightened.

The Drum is then rolled up to 10 feet in a 45° inclination and in this position the pressure will come on Bottom of drum. If no bulging is seen on drum then the drum Tilting & rolling Test is passed.



6. Air Pressure Test:

Compressed air is passed through a flexible pipe and a M.S.cap filled with inlet valves as per the following figure. The Pressure in to the drum is exerted up to 35kps; say 5.2psi. The compressed air is stopped when pressure reaches upto 5.2psi (~75kg/cm²). This drum is then kept in a water bath to check for leakages. If no bubbles are seen coming from the drum's body, then the drum Air Pressure test is passed.



7. Top Load Resistance Test:

The Drums are filled with water up to its nominal Capacity not up to the brimful capacity of water and the caps are tightened.

The drum is then kept vertical on a concrete flat floor. One M.S. sheet of size (3' x 3' x 6mm) is kept on top of the drum and 244kg of bricks are kept on the metal sheet maintaining a uniform load distribution. Date of initiation of testing is stuck on the drum belly. The drum is observed periodically up to 28 days. If no bulging is observed during the period of 28 days, then the top load resistance test is passed.



8. MFI (Melt Flow Index) Testing:

MFI is a simple measurement of the quality of polymer pushed through a die of specified dimensions at a set temperature within 10 min. It is frequently used to compare grades of the same polymer, as it gives an indication of the melt flow index present in that batch or grade.



9. Drum Cap Testing

Cap testing equipment is used to check the strength of caps produced. The sample cap is kept on the bottom base of equipment and a weight of 8 kg is dropped from a height of 5 feet. This procedure is repeated 3 times. If there is no rupture or crack found on cap, then the testing is passed.



OUR MOTTO
“Quality First”

OUR VISION
“To bring innovation and utmost Client Satisfaction with ethics in the packaging solutions industry”

Machinograph Infrastructure





Green Energy Initiative – Renewable Energy (Solar Power Plant)



Logistic: Dedicated Company Owned Fleet



Large Land Bank for Expansion



**“We Value Your Business...
But Value Your Trust Even More...”**



Contact Us

MACHINOGRAPH

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Website: www.machinograph.com

Manufacturing Locations:

Bharuch (Gujarat) | Tarapur (Maharashtra) | Murbad (Maharashtra)