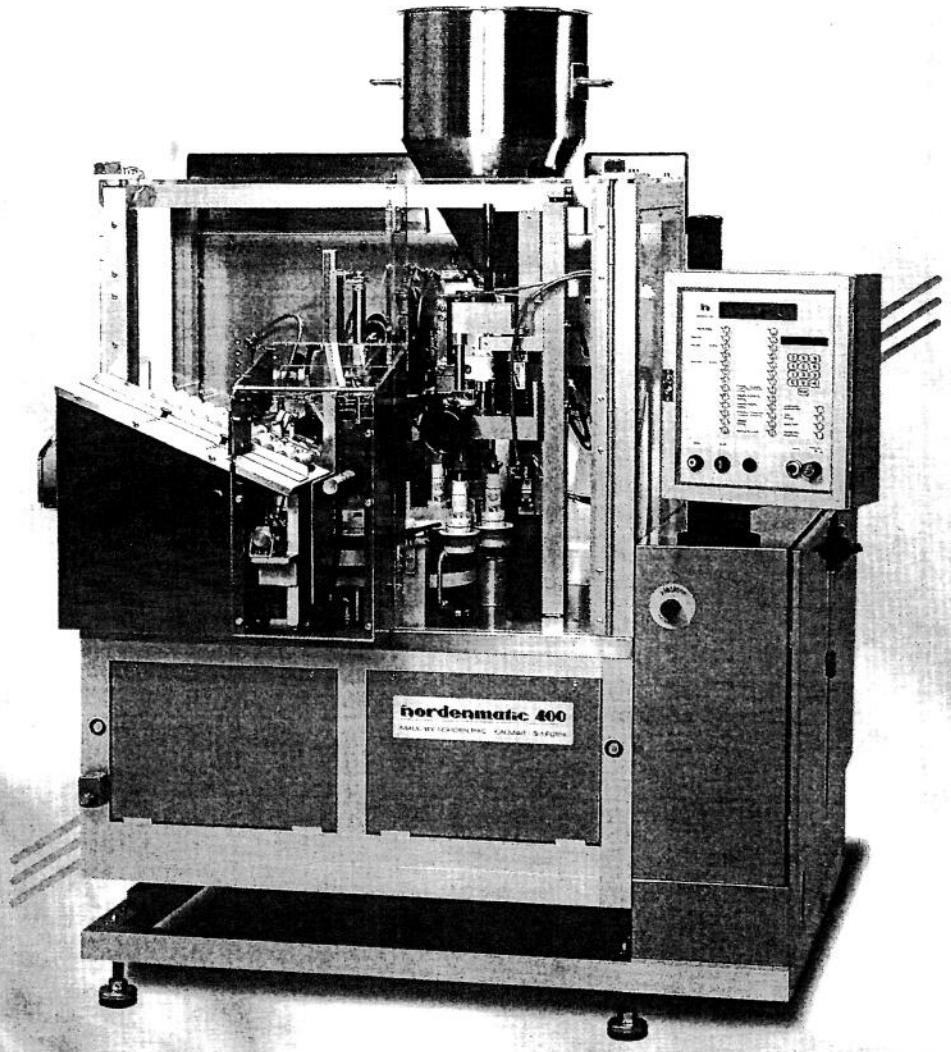
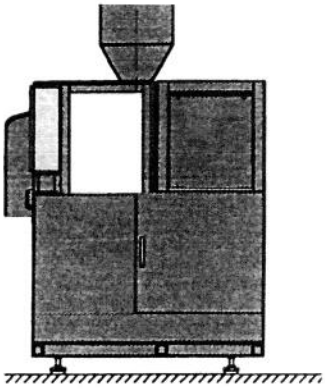
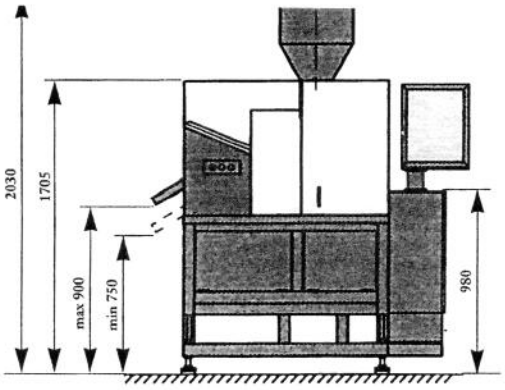


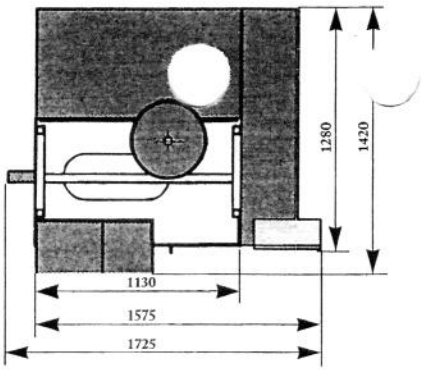
NORDENMATIC 400

Automatic tube filling and sealing machine

norden







TECHNICAL DATA

Running capacity (max tubes/min)	40
Filling volume	1–300 ml
Dosing accuracy	±0,1–0,5 %

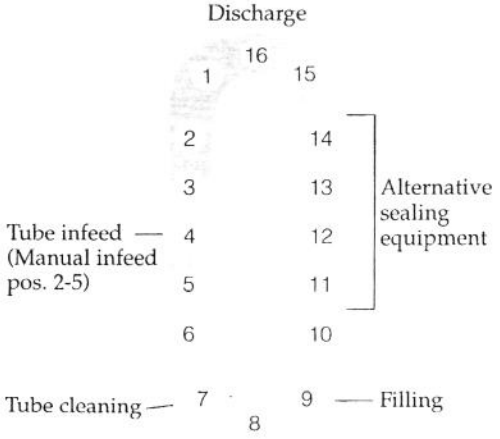
SHIPPING SPECIFICATION

Net weight approx.	1.200 kg
Gross weight approx. (case)	1.500 kg
Volume approx.	9,0 m³

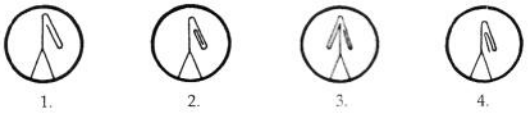
	M	**HA**
Tube length, mm	50-245	50-245
Tube diameter, mm	10-40	10-50
Power consumption		
max kW	1	4
average kW	0,9	3,0[1]
Air consumption[2], Nm³/h	15–35	30–55
Water consumption, l/min	-	4

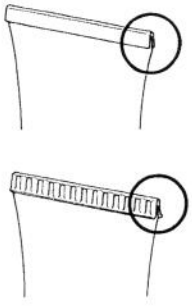
1. Depending on tube size and material.
2. Air pressure MPa 0,6 (bar 6).

OPERATION CYCLE



TUBE SEALING SYSTEMS





M-SEALING

HA-SEALING
for plastic and laminate tubes

Standard Equipment

- Hot Air (Patent protected) plastic, laminate and polyfoil tube sealing system, complete with crimping, trimming and six character alpha/numeric coding features.
- Pump units in stainless steel, for filling volumes (Choose one alternative)

  Alt A: 1 – 5 ml
  Alt B: 3,5 – 50 ml
  Alt C: 15 – 165 ml
  Alt D: 25 – 300 ml
- 45 l container, acid proof.
- "No tube - no fill" function.
- Bottom up filling with shut-off nozzle.
- Blow-off for connection to local compressed air supply.
- Discharge of tubes (tail first).
- Variator speed control main drive.
- Overload protection for tube transport chain.
- Size parts for one tube size and product filling.
- Spring loaded tube holders of Delrin.
- Electrical relay control system.
- Operating panel with all neccessary "START, STOP and EMERGENCY" functions.
- One set of "first-aid" spares.
- One set of tools.
- Colour: White RAL 9016
- Completely enclosed machine with electrically interlocked hinged doors above the machine table meeting most National safety standards and applicable sections of the proposed EEC Directive 89/392.
- One copy of an Operator manual.
- The machine can be wired to suit any standard 3 phase electrical supply within the price. Please specify.

Optional Equipment

- Metal folding system
- Semi automatic tube infeed system (Inclined chute and tilter)
- Cassette tube infeed system
- Tube cleaning
- Cap tightening
- Photo-electric tube print registration
- Code reading
- Cap first discharge

Technical Data

Nominal running capacity	40	
Filling volume, ml	1-300	
Dosing accuracy, generally	±0,1-0,5%	
	M	**HA**
Tube size range		
length mm	50-250	50-250
diam. mm	10-40	10-50
Power consumption		
max kW	1	4
average kW	0,9	3,0*)
Air consumption[1], Nm³/h	2-3	12-30
Water consumption, l/min	-	4

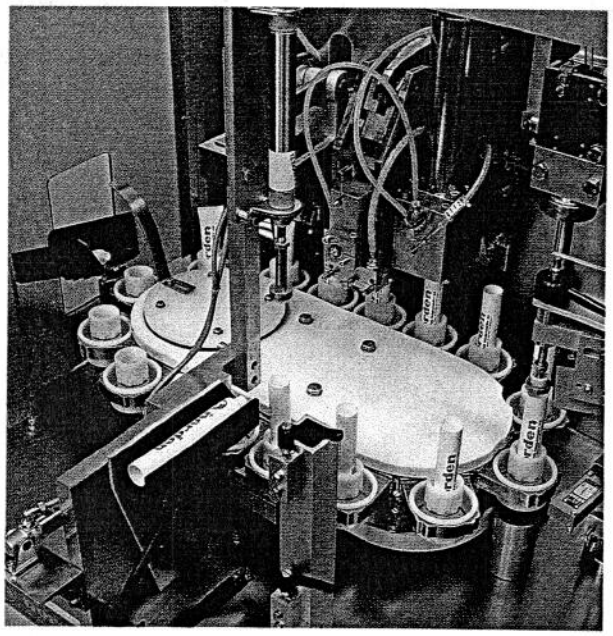
[1]) Air pressure 0,6 MPa (6 bar)
*) Depending on tube size and material

Shipping Specification

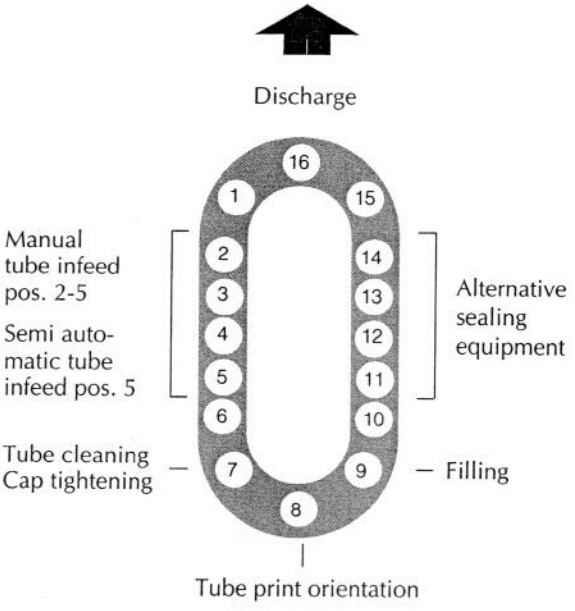
Nordenmatic 400 M/HA

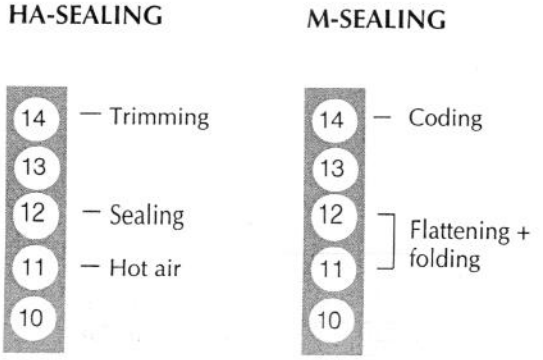
Nett weight	1000 kg (approx)
Gross weight:	1300 kg (approx)
Shipping Volume	6,7 m³

The above specification is subject to change without prior notice



TUBE FILLER OPERATING CYCLE





STANDARD EQUIPMENT

- Manual infeed of tubes.
- Volumetric pump unit in stainless steel. Parts in contact with the product are manufactured in SIS 2343-02 (DIN 1.4436, BS 316S16 or ASTM 316).

Filling volumes:	1-5 ml	Piston diameter:	15 mm
	1,5-15		20
	3,5-50		30
	15-165		45
	25-300		60

- 45L product hopper manufactured in stainless steel SIS 2343-02.
- The type of filling nozzle supplied depends on the product to be filled. Available nozzles types are blow-off, cut-off, combination blow-off and cut-off or valve-nozzle.
- Bottom-up filling. Rise and fall of the tube is controlled by a mechanical cam designed according to the filling product characterstics.
- "No tube - no fill" function.
- Automatic discharge of tubes (tail first).
- Variable speed via frequency converter.
- Overload clutch for the tube holder chain.
- One set of size parts for one tube size and one filling product.
- Tube holder. The design depends on tube size, material, cap design and required machine speed.
- Doors and covers below the machine table are manufactured in stainless steel SIS 2333-02 (DIN 1.7440).
- Access doors above the machine table are manufactured in plexiglass PMMA.
- Electrical cabinet painted, RAL 9006 (stainless steel look).
- Electrical control system. NORDEN UNI 90 with control panel comprising:

1. **Safety functions**
   Emergency stop
   Safety switches on doors and covers
2. **Control and check functions**
   No tube - no filling
   Faulty tube - machine stops
   Tube print orientation control (if adequate)
3. **Other functions**
   Stop in most favourable position
   Key board setting
   Fault indication panel in plain writing
   Production datas
   Machine speed, tube counting and production time
   Nine preprogrammed el. setting tables
   Supervision of all functions

- The machine is built in accordance with European standard EN 60204-1 which is based on IEC 204-1 : 1992.

Tube sealing systems

- Hot Air sealing unit for plastic, plastic laminate or aluminium laminate tubes.
- Metal folding unit for aluminium tubes.

OPTIONAL EQUIPMENT

- Semi-automatic tube infeed system with an inclined chute, vacuum assisted tilter mechanism and pneumatic push rod for automatically inserting tubes into the tube holder chain.
- A photo-electric tube registration station ensures correct positioning of the tube decoration prior to sealing. The system is controlled by a stepper motor together with a high accuracy photocell. Tubes may be stopped in any position up to 180 degrees.
- Size parts for additional tube sizes and/or products.
- Cassette infeed systems. Individual cassettes tailored to each carton size.
- Infeed system for conical tubes.
- Infeed system for tins.
- Tube cleaning and blow-off.
- Sterile filter.
- Tube re-rounding for aluminium or aluminium laminate tubes.
- Heated product hopper.
- Pressure equalizing system.
- Stirring devices.
- Product level control.
- Complete extra pump unit to allow fast product change over.
- Inert gas injection before and/or after filling.
- Coding on both sides of the tube.
- Cap first discharge for line configurations.
- Tropicalization kit for humid environmental conditions.
- Exhaust collector for trim waste.
- Data link for monitoring one or several machines on computer and/or printer.
- Explosion-proof version (for flammable products).

The above specification is subject to change without prior notice