

Technical Product Specification

P2000

11/2017

1. Technical criteria**1.1. Regulatory Compliance**

N°	Criteria	Description	Options	Remarks
1	ISO	Certified according to ISO9001:2015	Copy upon request	
2	ISO	Certified according to ISO14001:2004	Copy upon request	
3	OSHAS	Certified according to OSHAS 18001:2007	Copy upon request	
4	ISO	Certified according to ISO22716:2008	Copy upon request	

1.2. Style, Design, Construction & Function

N°	Criteria	Description	Remarks
1	Style, design & construction	P2000 style, design and construction to conform to current revision of technical drawings.	According commercial drawing
2	Aspect	The end of the dip tube has a "V" cut. This allows unaffected priming in case of contact of the dip tube with the wall or the bottom of the bottle. In some cases, the cut is not symmetric and therefore, the diptube length is always measured on the longest end	--
3	Diptube Length	Industrial diptube length (under gasket) is available between 77 and 289 mm ⁽¹⁾ and complies with the agreed specifications with the customer with a precision of ± 1 mm.	NR0710
4	Seal	The gasket seals towards the bottle in order to avoid the liquid to flow out of the container under the circumstances that the pump is properly screwed or crimped and the bottle neck complies with the recommendations (see #4.1).	--
5		The pump should not leak tested with a TLGB device.	NR0672
6		The pump should be tight when, being in the close position, it is applied top load pressure of 10Kg.	NR0666
7	Priming	Strokes to prime will be less than 5 strokes when pressing the head in vertical position ⁽²⁾	NR0707
8	Output	The output is checked with Neostell soap ⁽³⁾ ($d=1.020 \text{ g}\cdot\text{cm}^{-3}$) by weight difference. The tolerance is $D \pm 10\%$.	NR0605
9	Retention	Head removal force is greater than 4Kgf /39.2N)	NR0726
10		The retention force ranges between chaplet and closure is: <ul style="list-style-type: none"> Greater than 3kg (29.4 N) for closure diam. 24 Greater than 2Kgf (19.6N) for closure diam. 28 	NR0692
11		Diptube retention force is greater than 1.5Kgf for rigid diptube (PP) and greater than 0.5 Kgf for flexible diptube (PE)	NR0727
12	Torque	The unlock torque of the actuator is between 1Kg cm and 5Kg cm (0.098 y 0.49 N m)	NR0663
13	Free spinning	The torque required to rotate the closure around the lock ring in non positioning closures and in all chaplet versions (free spin) is less than 0.5 Kg cm (0.049 Nm).	NR0615
14	Bending diptube	Bended diptube tolerance is $\pm 10^\circ$.	NR0147
15	Venting	If the pump works properly and following our recommendations, the air comes into the bottle to compensate the depression inside avoiding the paneling	--

Remark: All criteria are verified according to applicable test methods from Supplier 710311

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 R. BR. UNOSA 200314 Page 1 of 9
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 DATUM: 10-04-2020 POTPIS: Beck

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- (1) Depending on version
- (2) Strokes to prime could increase depending on product viscosity
- (3) Customer's product to be used considering its density.

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10 -04- 2020		

1.3. Classification of Non-Conformances

- This procedure establishes a consistent method for classifying non-conformity
- When a non-conformity is found, it will be placed in the class with the description that applies.
- This specification applies to shower guard finished assemblies.
- For non-conformities, according ISO2859, following the simple sample of a normal inspection with a general level II.

Class	AQL	Type	Description
Critical	0	Safety	Hazardous or unsafe condition for individuals handling or using product
		Regulatory	Violation of legal requirements indicated in REACH & 94/62/EC
		Packaging	Quantity of the order not according with invoice
Critical	0.1	Material	Subassembly or final assembly produced with non specified components.
			Components produced from non specified material
		Functional	Lack of components or mixed.
			Not working pump
			Leakage of product outside the bottle
Hygiene	Bended diptube out of specifications.		
	Diptube length higher specifications (> nominal + 1 mm)		
Major	0.65	Packaging	Contamination in contact with Customer's product
		Aesthetical	Quantity per box NAS
Major	0.65	Functional	Evident aesthetic defect (visible at 80 cm)
			Leakage of product inside the bottle
			Strokes to prime out of specification
			Output out of specification
			Component holding force out of specification
Minor	1.0	Aesthetical	Dip tube length shorter than specification (< nominal - 1 mm)
			Packaging
Minor	1.0	Packaging	Damaged packaging (without damaged of pieces inside box)

(Critical (0)): Any defect which affects the user safety or which is not accordance with legislation.

(Critical (0.1)): Any defects that cause a functional failure of the dispenser.

(Major): Defect which reduces the normal functioning of the product.

(Minor): Defect which does not affect the functioning of the product or affects slightly its aesthetics.

The quality control is made at different steps according to the control plans both on quantities and frequencies established by the company:

- Incoming raw material control
- Control plans
- Product audits

The customer's non-conformities are managed by the Customer Quality Service. In order to make easier their treatment, faulty samples preferably not manipulated are needed as well as a copy of the label identification

of the affected lots and a complete report indicating the affected material, the carried sampling and the resultant percentage of defective units

The type of packing is suitable for internal handling and stocking of the finished product. Any damages of the packing which are due to the transport and found by the Customer on acceptance of incoming goods should be pointed out by the Customer to the transporter. The type of damages must be reported in writing on the transport document CMR and/or Supplier 710314 Delivery note and it should be sent by writing to us.

N°	Criteria
1	Supplier 710314 does not accept any responsibility of the problems from the piled up or pressure on the head of the dispenser during handling or transport of the final packaging when using the lock up version.
2	Cartons are recommended to be labeled "DO NOT PLACE UP SIDE DOWN" during transportation.
3	Cartons of pumps must be piled up as indicated by arrows in order to avoid dip tube bending.
4	Recommended pallet storage temperature to be not lower than 10° C nor higher than 45° C; Relative humidity storage condition for Packing carton not to be higher than 70 – 80% over long periods of time to avoid damage. Pallets are recommended to settle, for the right period of time, to room temperature (20± 3° C/68±6° F) before usage to prevent any issues due to thermal variations. A maximum stacking height of 1 pallet is recommended to prevent defects to box/product. It is recommended not to exceed storage periods longer than a year (from Supplier 710314 production date to filling-process). Remark: To avoid bent dip tubes do not store the pumps more than 60 days.
5	In case of functioning failure it is recommended to send back the non manipulated package accompanied by the carton labeling information.
6	Do not press the flexible bottle by hand pressure while dispensing the product and do not actuate the pump faster than 60 stroke/minute. There is a risk of leakages or bad functioning.
7	Do not dispense the product with the bottle in an up side down position.
8	Do not fill the container above the venting orifice. Approx 10 % of its volume must be kept without product depending on the packaging shape and type of pump.
9	When loading hoppers, we recommend not dropping the pumps from above a meter high to prevent any risk of damaging or disassembling pieces.
10	P2000 dispenser is not intended as a sterile product such the ones used in pharmaceutical, medical or veterinary products. Using it as such will be under customer's responsibility. It is the customer's responsibility to inspect and test our products to determine the suitability of the products for the Customer's particular purpose. The customer must determine that using our products is safe and lawful on their intended applications, as required in the article n. 3 of European Regulation 1935/2004.
11	In the bowl and feeding canals in the filling line, do not keep the pumps more than 30 minutes to prevent any risk of gasket falling.
12	Normally the use is self-explanatory, but may require some additional instructions for final user.
13	For final packs where the head will be oriented along the bottle, Supplier 710314 recommends the use of P2000 with the clockwise opening sense head (inverter)

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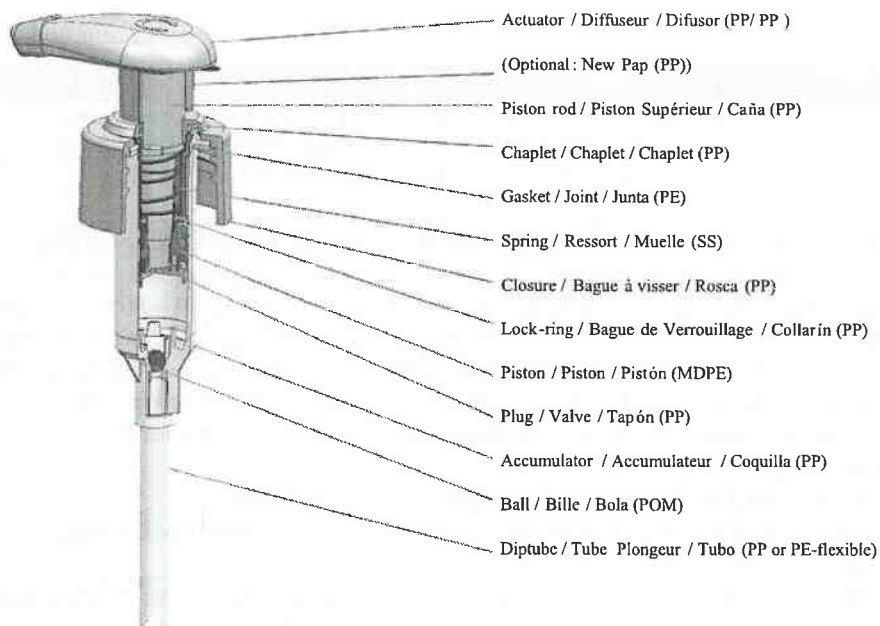
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P2000

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2. Components and Materials

2.1 Materials



Piston rod, piston and closure components require mould releases to make molding process easier. The system has silicone as lubricant.

The addition of any master batch guarantees dimensions and specifications.

Components in contact with product are: the diptube, the ball, the accumulator, the plug, the piston rod and the head

Opening – sense versions



Anti-clockwise Opening- sense (Std)

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Clockwise Opening- sense (Inverter)

P2000

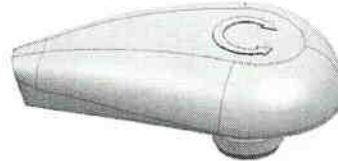
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Remark: recommended option for oriented heads for final packs

Head versions

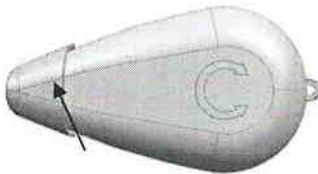


Head Belle
(PP/PP shiny o PP/PP frosted in the internal part)



Head Std
(PP shiny)

Tamper evident



New Pap
(only available for Std Head)



Metal overshell on the closure
(only available on closure 28x410 ribbed)

2.2. Material Compliance

N°	Criteria	Description	Options	Remarks
1	Reach	Reach 1907/2006 CE		
2	CE	European Directive 94/62/E concerning heavy metals		

3. Compatibility Product Policy

Supplier 710314 will conduct under request preliminary compatibility & performance test with product supplied by customer; and will make certain recommendations regarding the suitability and use of our dispensers. However, these are recommendations only and is neither an implied nor stated warranty regarding the compatibility of Supplier 710314.

Final decision will be made by customer.

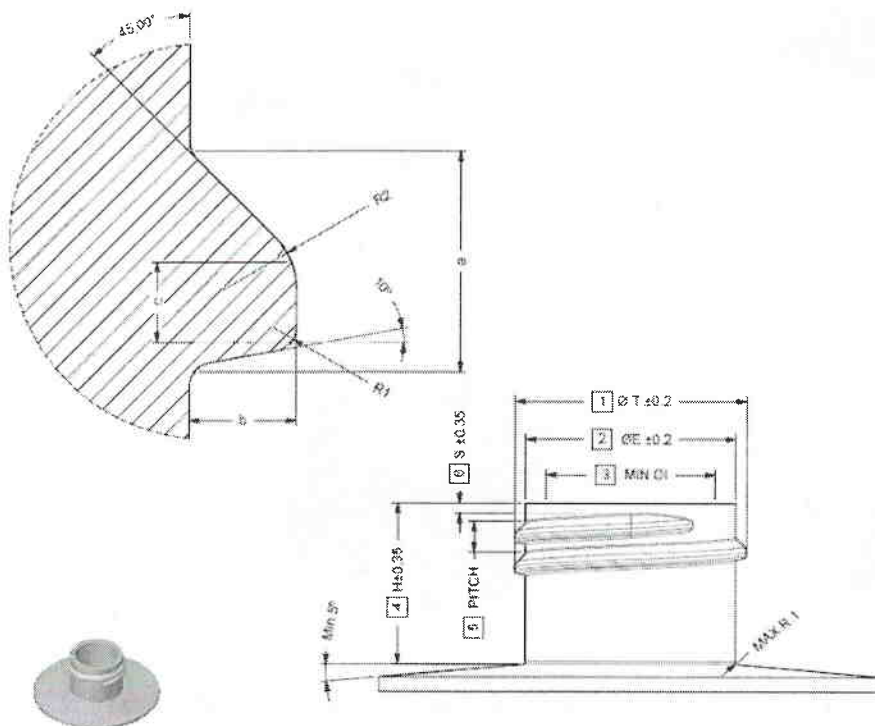
It is recommended to set a new compatibility test if customer's product changes.

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4. Technical Dimensions

4.1 Bottle neck recommendations

The recommended bottle neck must be in accordance with GPI standard.



GPI	GPI 24/410	GPI 24/415	GPI 28/410
H	16.40	24.30	18.00

GPI	T	E	I	S	PITCH	a	b	c	R1	R2	Thread Turns min.
24/410	23.70	21.50	17.30	1.20	3.18	2.13	1.07	0.89	0.25	0.75	1.5
24/415	23.70	21.50	17.30	1.20	3.18	2.13	1.07	0.89	0.25	0.75	2
28/410	27.40	25.00	17.30	1.20	4.24	2.39	1.19	0.89	0.25	0.75	1.5

Note: Available closures 24/410, 24/415, 28/410.

Can be used the P2000 without gasket or with gasket according to Lab recommendation.

The retention torque of closures is in accordance with the SPI standard (Society of Plastics Industry).

Bottle neck dimension (mm)	Application torque	
24	between 1.1 and 2.0 N.m	between 12 and 21 Kg.cm
28	between 1.4 and 2.4 N.m	Between 14 and 24 Kg.cm

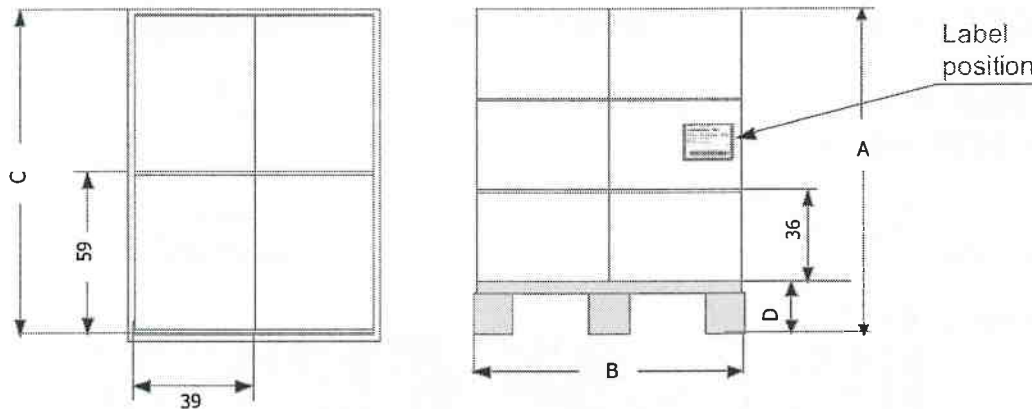
The identification of contents is assured by a label system in each carton, each pallet and each packing list.

The final goods are adequately packed inside plastic bags in cardboard boxes to prevent contamination and sent to the customer in the defined quantity. (Dimensions of the carton: 59 x 39 x 36 cm).

5.1 Packaging, Shipping

The pallets are wrapped with PE film.

The pallets are according the packing standard



Palet type **EUROPEAN 120 X 80**

Nº Layers	Nº de cartons	Long	Depth	Height (including the 15cm of the pallet)	
1	4	120	80	50	
2	8	120	80	85	
3	12	120	80	120	
4	16	120	80	155	
5	20	120	80	190	STD
6	24	120	80	225	

Palet type **EUROPEAN 100 X 120**

Nº Layers	Nº de cartons	Long	Depth	Height (including the 15cm of the pallet)
1	5	120	100	50
2	10	120	100	85
3	15	120	100	120
4	20	120	100	155
5	25	120	100	190
6	30	120	100	225

The cover & label pallet is an option agreed with the customer.

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5.2. Labeling

Each carton is labelled with information below:

 Via Trajana n.25 08020 Barcelona		Customer name		1
CUSTOMER P/N 10002330		CUSTOMER P/O 420661741/3		2
PART NUMBER 600000112	TUBE U.G. 5	SALES ORDER Z01120301	MANUFACTURING ORDER 2.627.068	3
CAPSULA MELODIE CLIKIT II 15 NCM 8424.90.90				4
DATE 4/09/2017	QUANTITY 7.000	CARTONS / QTY 1/ 7.000	CARTON # 11 148	MWV REF/PED 600000112
DELIVERY IN: BRAZIL				5
 Z 0 1 1 2 0 3 0 1 0 0 1 4 8 0 0 7 0 0 0				6

1. Customer
2. Customer's reference
3. Customer order
4. Supplier 710314 SAP reference
5. Dip tube length
6. Supplier 710314 SAP order
7. Work order Supplier 710314
8. Description/name of the product
9. Date of production
10. Quantity per carton
11. Total number of cartons
12. Internal Bar code

For incomplete cartons, it's labelled with "REMAINING LABEL" **RESTO**

We use empty carton for complete the pallet. These cartons are identifying with a label of "EMPTY".

EMPTY

6. Final Clause

This Technical Reference document is current as noted by date of issue. Technical changes may be introduced by Supplier 710314 without prior notice.

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R. BR. UNOSA	200.344
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10-04-2020	

7. Modification control					
Date	Rev.	Change	Prepared	Supervised	Approved
19/04/12	03	2.1. Add New Pap versions	L.Duque		J. Pena Suari
					Ll. Costa
04/10/12	04	1.2 Mistake with NR0292, changed for NR0692; Diptube cut change. 2.1. Add Opening- sense 1.3. Change in the description of legal requeriments.	L.Duque	Resp SIG	J. Pena Suari
					Ll. Costa
05/12/14	05	Addition of certification on ISO22716 Modification on the pallet information Modification of the carton label according SAP information Delete old new pap version	M. Hernández	Resp SIG	J. Pena Suari
					O. Faneca
					V. Wagner
01/03/2016	06	Change of social name from MWV to WestRock. Modification on transport complaints indications	M. Hernández	Resp SIG	O. Faneca J. Pena Suari
14/11/2016	07	Update on carton label as per SAP system removal Update bottle neck drawing	M. Hernández	Resp. SIG	O. Faneca L. Senegaglia
03/11/2017	08	Change of social name from WestRock to Supplier 710314 Dispensing Systems. Update ISO 9001:2015 Addition of the components in contact with the product on section 2.1 Addition of denomination of Satin head on std version Addition of flexible diptube Addition of overshell closure	M. Hernández	Resp SIG	O. Faneca E. Martorell