



GLASS VIALS

FINE-TUNED TO YOUR PROCESS &
DRUG REQUIREMENTS



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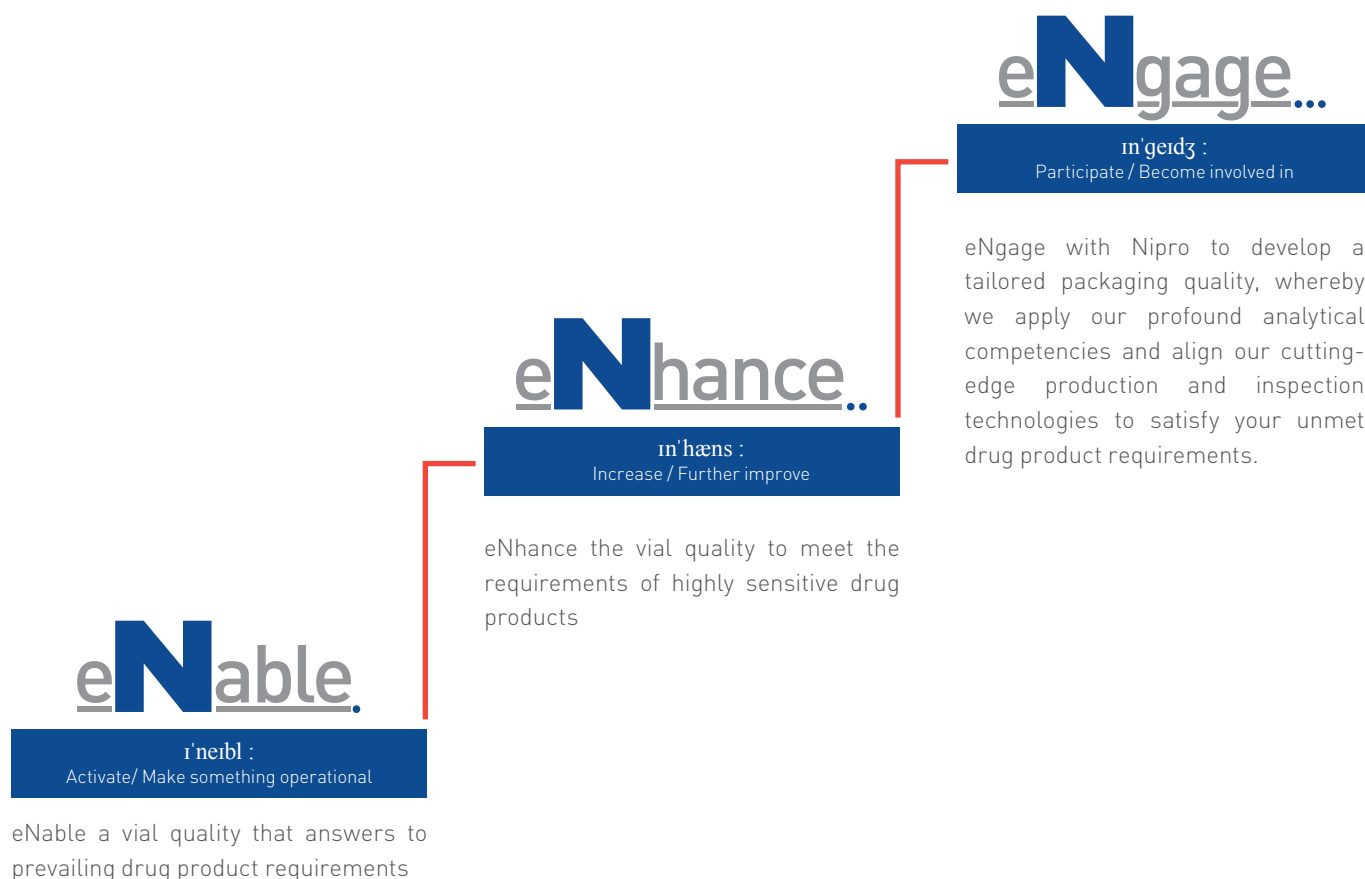
Glass vials have been the Gold Standard in the pharmaceutical industry for decades. To this day, a large number of pharmaceutical companies choose glass vials because of their inherent characteristics and scientifically proven suitability to store drug products safely.

Nipro, with more than 60 years of experience in converting standard and customized vials, offers a wide range of high-quality vials that meet the diverse requirements of drug products.

NIPRO'S QUALITY LEVELS

The process of defining the right quality level for primary packaging to meet specific drug product requirements is a complex process. In order to ensure the optimal match, there must be understanding and collaboration: specific data must be exchanged, requirements discussed, and numerous parameters defined.

Our Nipro Quality Levels form the perfect base to fine-tune your quality and service requirements, thereby providing you with the optimal packaging solution.



**SIMPLY SELECT THE QUALITY LEVEL
FINE-TUNED TO YOUR SPECIFIC DRUG REQUIREMENTS!**



Our state of the art production facilities feature advanced manufacturing and inspection technologies that are capable of ensuring quality levels even for your most advanced drug products.

EXCEPTIONAL SURFACE DURABILITY

We begin by selecting high-quality glass tubing that complies to USP, EP, and JP as starting material. Production takes place in controlled environments monitored by quality systems that comply to ISO 15378, ISO 9001, ISO 14001, and OHSAS 18001. For exceptionally sensitive drugs, Nipro's premium technology for surface durability, known as VIALEX™, will be applied to ensure the best vial-drug compatibility.

OPTIMIZED PERFORMANCE OF FILLING LINES

Our high-end converting lines follow a precise forming process that results in vials with strong mechanical stability. Automated visual inspection systems ensure tight dimensional and cosmetic tolerances. Combined, these control systems minimize the risk of breakage during your Fill-Finish operations and the number of rejects during final inspection.

BROAD RANGE OF SPECIALTY PRODUCTS

We routinely develop specialty vials for our customers, designed to meet specific requirements, e.g. handling extremely low drug volumes, withstanding high pressure, and offering optimal integration into injection devices.

SIMPLE DATA SHARING

Data sharing is key in understanding needs and facilitating both development and supply. Therefore, all necessary data is available and will be adapted to meet your processes, e.g. product specifications sheet, LoA, CoC, CoA.

MANUFACTURING

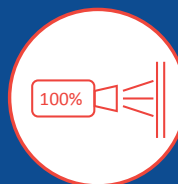


No glass-to-glass
contact

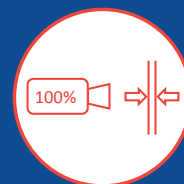


VIALEX™

INSPECTION



Cosmetic
inspection



Dimensional
inspection

RANGE

CRIMP NECK

Volume (ml)	Outside Ø (mm)	Total Height (mm)	Wall Thickness (mm)	Neck Ø (mm)
2R	16	35	1	13
4R	16	45	1	13
6R	22	40	1	20
8R	22	45	1	20
10R	24	40	1	20
15R	24	60	1	20
20R	30	55	1.2	20
25R	30	65	1.2	20
30R	30	75	1.2	20
50R	40	73	1.5	20
75	47	75	1.7	28
75	47	75	1.5	20
75	47	75	1.95	32
75	40	100	1.5	20
100R	47	95	1.5	20
100	47	95	1.7	28
100	47	95	1.95	32



Blowback: EU / US version

Printing: Ceramic

Special: VIALEX™, Ammonium sulfate treatment



UNIT/BI-DOSE

Volume (ml)	Outside Ø (mm)	Total Height (mm)	Wall Thickness (mm)	Neck Ø (mm)
1	6.6	19.5	0.8	8.75
2	6.6	28	0.8	8.75

SCREW NECK

Volume (ml)	Outside Ø (mm)	Total Height (mm)	Wall Thickness (mm)	Neck Ø (mm)
5	18	45	1.2	14
7.5	22	40	1.2	18
10	24	45	1.2	18
15	24	60	1.2	18
20	30	55	1.2	22
25	30	65	1.2	22
30	30	75	1.2	22
50	40	73	1.5	22, 28, 32
60	40	80	1.5	22, 28, 32
70	40	90	1.5	22, 28, 32
75	40	95	1.5	22, 28, 32
75	47	80	1.7	22, 28, 32
80	47	85	1.7	22, 28, 32
90	47	90	1.7	22, 28, 32
100	47	95	1.7	22, 28, 32
125	47	110	1.7	28, 32

Printing: Ceramic

Special: VIALEX™, Ammonium sulfate treatment



SPECIALTY VIALS

We offer a broad range of special and customized vials

- High recovery
- V-bottom
- Double chamber
- Pressure resistant types



STANDARD (NEST & TUB)

Nest & tub are cleaned
with ionized air



Washed vials are loaded
into nest & tub



Covered with insert(s) and
sealed with lid (Tyvek®)



Sealed tub is entered into breather
bag(s) and welded close



100% camera inspection confirms
each tub is filled & correctly sealed



Tubs are transferred
into outer boxes



Outer boxes are placed on pallets and
secured for safe transportation



External sterilization is performed & EO
exposure is confirmed by label



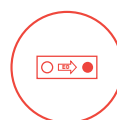
KEY TECHNOLOGIES



100% camera
inspection



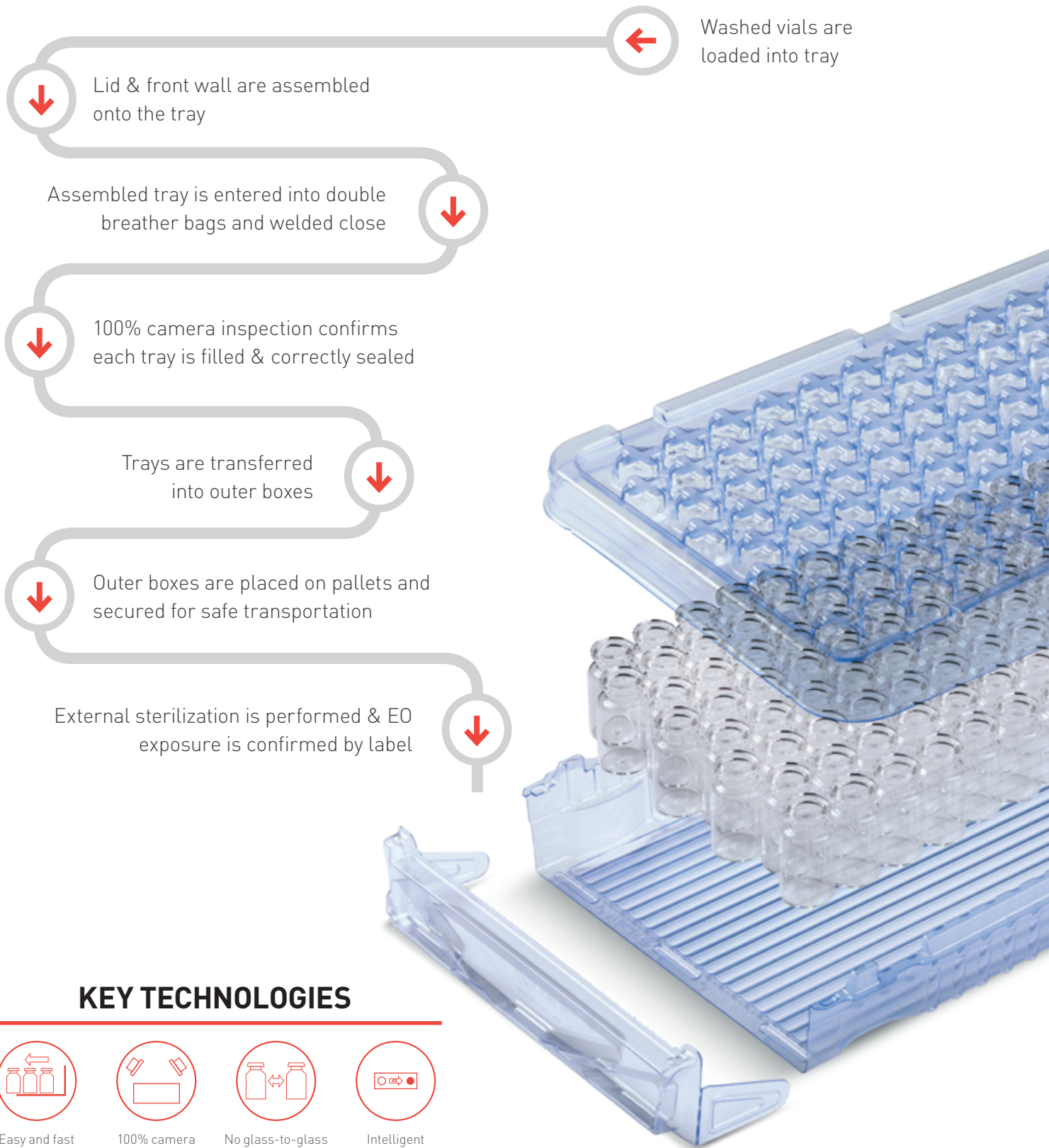
No glass-to-glass
contact



Intelligent
label

Nipro PharmaPackaging manufactures D2F vials in technologically advanced production sites that are certified according to ISO 9001, ISO 15378, and ISO 14001. Our fully automated packaging process takes place in an ISO 7 / ISO 8 cleanroom with GMP 100% monitoring under laminar air flow.

LARGE QUANTITY (TRAY)



Nipro PharmaPackaging is specialized in developing and manufacturing advanced pharma packaging products and complete packaging solutions for early development drugs or the enhancement of packaging solutions for existing drugs.

With a worldwide manufacturing footprint of 15 plants, multiple sales offices, and internal lab services, Nipro PharmaPackaging offers an exceptional service platform. Through our personnel, products, and services, Nipro PharmaPackaging enables you to provide a safer and healthier administration to your customers.

Nipro PharmaPackaging is part of Nipro Corporation Japan, established in 1954. As a leading global healthcare company with over 28.000 employees worldwide, Nipro serves the Pharmaceutical, Medical Device, and Pharma Packaging industries.

