



BNX Converting LLC. Solutions Brief

Supply of N95 Respirator Face Masks
Area of Interest (Aol)

2022

CAGE Code: 8T7Z3

DUNS number: 117714784

NAICS: 339113, 423450, 561990, 624230

Socio-Economic Status: Minority Owned Business

CONTACT

Adam Ravat

adam.ravat@bnx.com

315-790-0466

BNX Converting LLC.

16727 Park Row,
Houston, Texas,
77084



Company Overview

BNX Converting was launched in 2020 by Amcrest, which has been involved in the manufacture and distribution of security cameras since 2010.

BNX Converting is a limited liability company that was founded in Houston, Texas in order to support the public response to the COVID-19 outbreak.

Our goal is to supply frontline workers, government employees as well as the general public with high-quality, American made masks at an affordable price.

125 Employees
Located in Houston

Purpose

Introduce BNX Converting, LLC (BNX) capabilities and solutions that will fulfill requirements, close capability gaps, and provide potential technological advancements in support of the COVID-19 Response Acquisition Task Force (DAF ACT) mission to provide relief, resilience, recovery, and stability to the nation in response to the COVID-19 pandemic.

Adam Ravat

CEO of BNX Converting LLC.

Rachel Leong

QC Lead
Mechanical Engineer

Guangli Ma

Lead Mechanical
Engineer

Yan Tong Ng Zhen

Quality Control Engineer

Alex Tan

Mechanical Engineer

Company Evolution

2010
Amcrest founded.
Importing and distributing security cameras.



2014
Amcrest established manufacturing of security cameras in Asia in 2014.



2015
Acquired current 94,000 sqft manufacturing and distribution facility in Houston, TX

Aug, 2020
BNX Converting launched by Amcrest in 2020 to establish US based manufacturing of N95 masks.
Establishment of Duckbill respirator line.



Sept, 2020
Acquired new 79,000 sqft expansion manufacturing facility in Houston, TX in (to meet increased demand and surge requirements)



Oct, 2020
Achieved KN95 certification on Duckbill masks.



Oct, 2020
Completed NIOSH Application and Issued 3-Digit Manufacturer Number.



Jan, 2021
NIOSH N95 On-Site Audit Completed Successfully and Provisional Pass.



Sep, 2021
BNX becomes Amazon's best seller Made in USA N95 Respirator Mask.





Medical workers



Law enforcement



Hospitality workers



Teachers and Educators



Construction workers

To assist healthcare providers, first responders and frontline workers in our nation's response to COVID-19

H95 VERTICAL FOLDING RESPIRATOR (HEADBAND)

95% PFE Filtration / 99% BFE Filtration




Multi-Layer Protection

- Spunbond Polypropylene
- Hot Air Cotton Polypropylene
- N95 Grade BFE99 Meltblown
- Hot Air Cotton Polypropylene
- Spunbond Polypropylene



Vertical Folding Design



Blocks 95% Of Airborne Particles



Headband Attachment



Adjustable Metal Nosepiece

#bnxmadeinusa

E95 **VERTICAL FOLDING RESPIRATOR (EARLOOP)**
95% PFE Filtration / 99% BFE Filtration



KN95
GB2626-2019


 **MADE IN USA**
MADE IN USA FROM GLOBALLY SOURCED COMPONENTS

OEKO-TEX®
CONFIDENCE IN TEXTILES
STANDARD 100
21.HUS.74590 HOHENSTEIN HTTI 

Multi-Layer Protection

- Spunbond Polypropylene
- Hot Air Cotton Polypropylene
- N95 Grade BFE99 Meltblown
- Hot Air Cotton Polypropylene
- Spunbond Polypropylene


Vertical Folding Design


Blocks 95% Of Airborne Particles


Earloop Attachment


Adjustable Metal Nosepiece

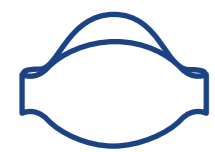
F95 FOLDING CUP STYLE RESPIRATOR

95% PFE Filtration / 99% BFE Filtration



Multi-Layer Protection

- Spunbond Polypropylene
- Hardshell Stiffer Polypropylene
- N95 Grade BFE99 Meltblown
- Spunbond Polypropylene



Folding Cup Style Design



Blocks 95% Of Airborne Particles



Headband Attachment



Adjustable Metal Nosepiece


C95 **CUP STYLE RESPIRATOR MASKS**
95% PFE Filtration / 99% BFE Filtration



Multi-Layer Protection

- Spunbond Polypropylene
- N95 Grade BFE99 Meltblown
- Needlepunched Polypropylene


CUP Style Design


Blocks 95% Of Airborne Particles


Headband Attachment



Adjustable Metal Nosepiece

A96-2 HORIZONTAL FOLDING DUCKBILL RESPIRATOR

95% PFE Filtration / 99% BFE Filtration




Horizontal Folding Design


Blocks 95% Of Airborne Particles


Headband Attachment


Adjustable Metal Nosepiece

Multi-Layer Protection

- Spunbond Polypropylene
- N95 Grade BFE99 Meltblown
- Spunbond Polypropylene
- Hydrophilic Spunbond Polypropylene

Quality, Safety, Innovation.

BNX's parent company, Amcrest, has been at the forefront of manufacturing security and safety products since its inception. BNX has leveraged this expertise and the necessary resources to fulfill its mission to manufacture the highest grade N95 NIOSH certified masks in order to support our great nation in response to the COVID-19 pandemic. BNX has a scalable and viable solution in place utilizing the highest grade materials, latest automated equipment as well as the talent, people, drive and unrelenting determination to fulfill our commitment.

01

Competitively priced with **highest level quality**

02

Made in USA. Currently employ 125 people in Houston, TX. Projected to add at least 160 new local jobs upon expansion.

03

Our focus is on automated manufacturing in the US

04

Large investment in automation of systems and processes, long term sustainability and viability in the US

05

Wide array of products (4 unique N95 mask styles) to fit faces of all shapes, sizes and preferences. We also have Earloop KN95 vertical folding and FFP2/CE versions for convenience



06

Manufacturing capacity, we can scale up to 8million+ masks per month based on our current facility and machines

07

Supports local US jobs and building up strategic medical manufacturing facilities in Houston, TX

08

Profits are being used to re-invest in further US manufacturing. We have meltblown line on the way and are setting up for Air filter and water filter manufacturing in Houston.

09

Vertical integration for most competitive pricing and direct control over quality of input materials. We will be producing our own meltblown (the active filter ingredient) **in our masks and thus we will be able to pass those cost efficiencies on to our customers**

10

We have invested in 2 x TSI 8130A filter testing machines for our quality control. We have a third equivalent machine on the way

11

We are in the process of implementing our ISO13485 quality control system and will seek surgical 510K rating on all of our N95 masks

12

We have completed our NIOSH on-site Site Qualification visit and have been successfully granted provisional authorization for the production of our Duckbill N95 respirator

13

Operate out of a 94,000 sqft facility and acquired new 79,000 sqft adjacent facility to meet increased demand and surge requirements



Current Production Capacity & Scaling Requirements

October 2020
Establishment of
Duckbill Mask Line
with capacity up to
680,400
masks per month

December 2020
Establishment of
Cup Mask Line
with capacity up to
1,260,000
masks per month

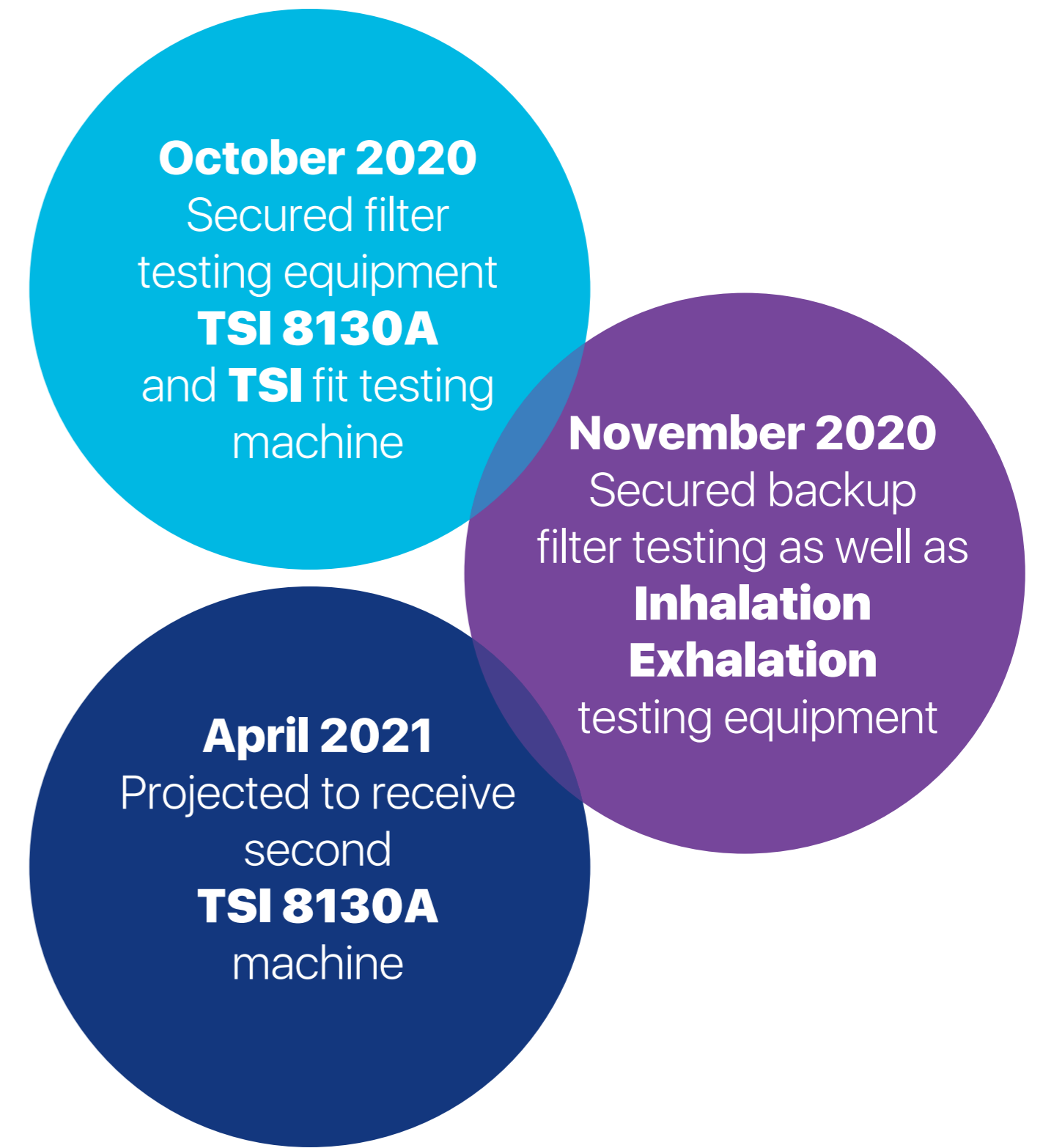
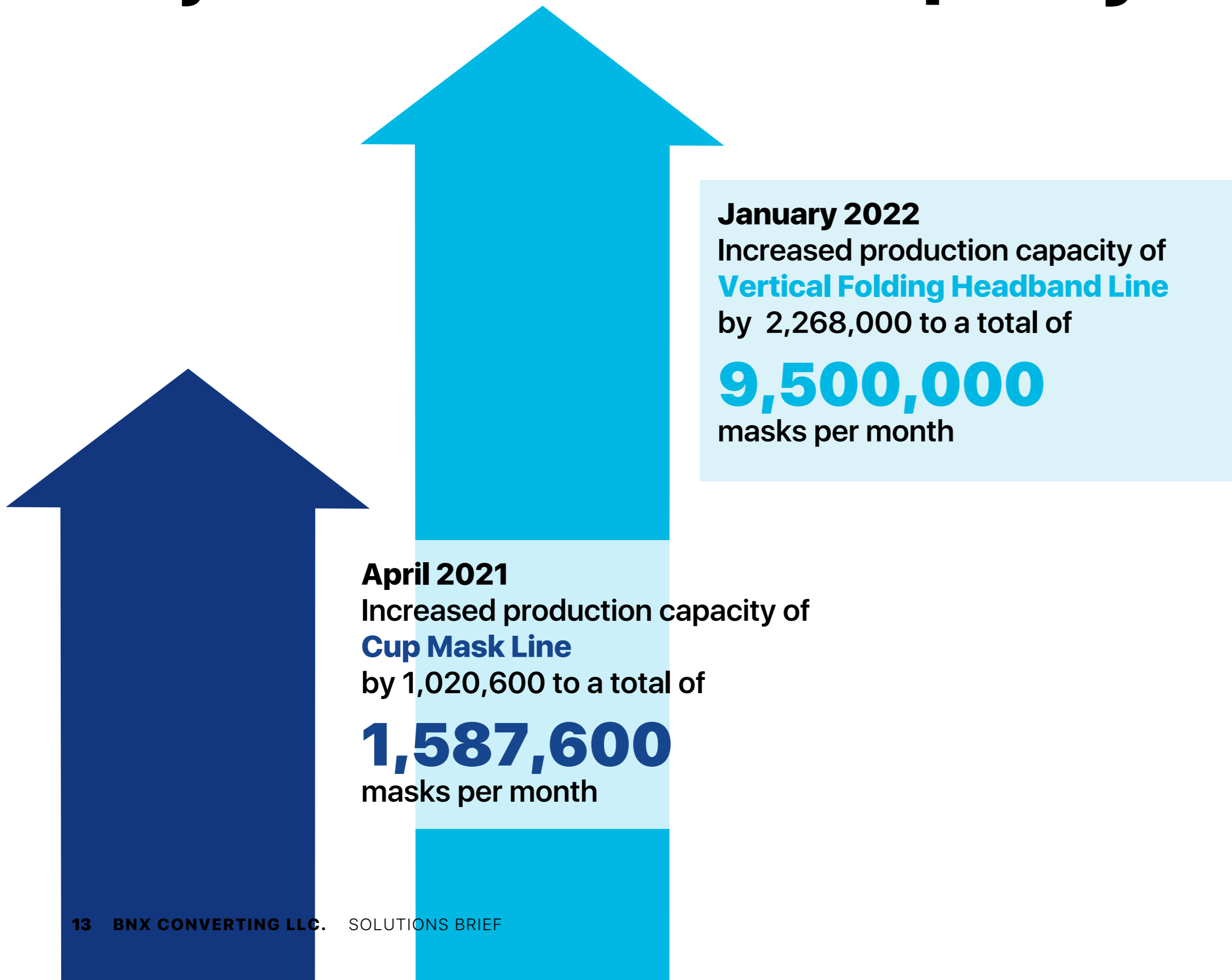
January 2021
Establishment of
Vertical Headband Mask Line
with capacity up to
3,528,000
per month

January 2021
Establishment of
Folding Cup Mask Line
with capacity up to
1,296,000
masks per month



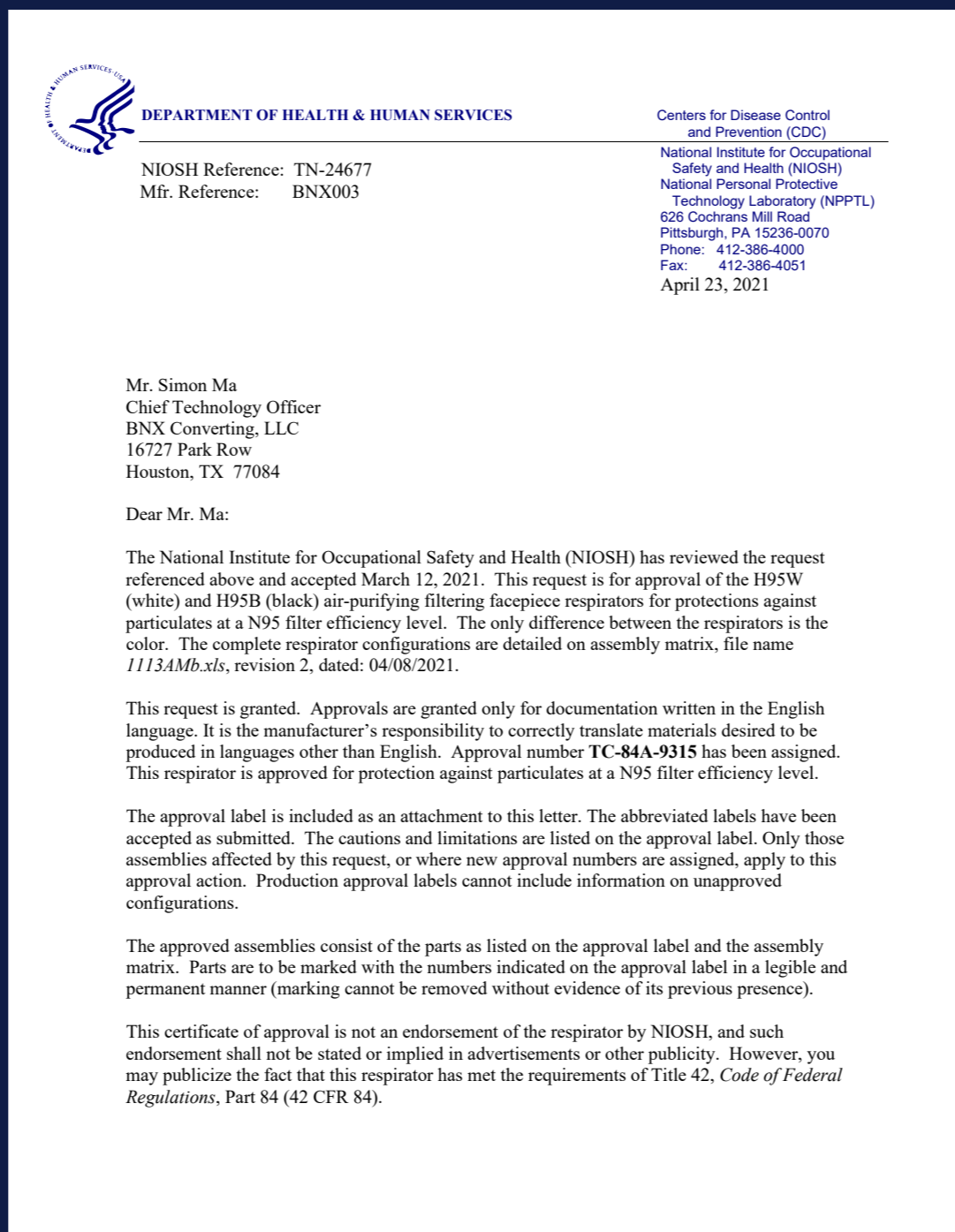
Projected Production Capacity

Testing Capacity

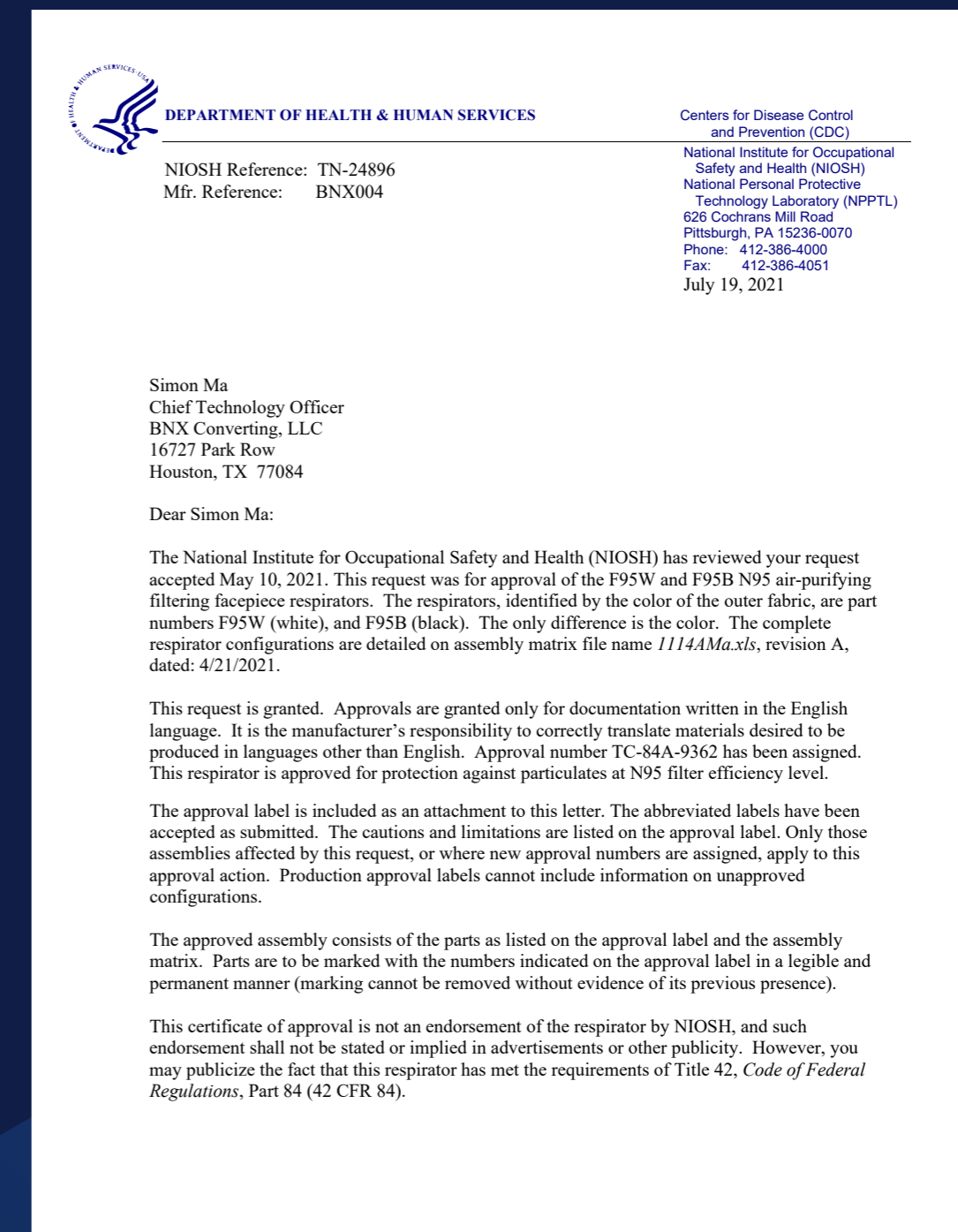




FDA Registration #: 3017489417



TC-84A-9315



TC-84A-9362



FDA Registration #: 3017489417



Centers for Disease Control and Prevention (CDC)
National Institute for Occupational Safety and Health (NIOSH)
National Personal Protective Technology Laboratory (NPPTL)
3601 Research Triangle Road
Pittsburgh, PA 15236-0070
Phone: 412-386-4000
Fax: 412-386-4051


Your request for approval of an air-purifying respirator, including the assembly matrix, are part of the complete application. The assembly matrix, file name 1115.AMB.xls, revision B, dated: 06/21/2021.

The English translation of the assembly matrix is attached to be reviewed. The assembly matrix, file name 1115.AMB.xls, revision B, dated: 06/21/2021.

There have been no changes made to the assembly matrix since the last approval. Only those changes to the assembly matrix that are necessary to this approval are included.

The assembly matrix is legible and readable.

However, you may publicize the fact that this respirator has met the requirements of Title 42, Code of Federal Regulations, Part 84 (42 CFR 84).

 DEPARTMENT OF HEALTH & HUMAN SERVICES

Centers for Disease Control and Prevention (CDC)
National Institute for Occupational Safety and Health (NIOSH)
National Personal Protective Technology Laboratory (NPPTL)
626 Cochran Mill Road
Pittsburgh, PA 15236-0070
Phone: 412-386-4000
Fax: 412-386-4051
July 21, 2021

NIOSH Reference: TN-24957
Mfr. Reference: BNX005

Simon Ma
Chief Technology Officer
BNX Converting, LLC
16727 Park Row
Houston, TX 77084

Dear Simon Ma:

The National Institute for Occupational Safety and Health (NIOSH) has reviewed your request accepted June 3, 2021. This request was for approval of the model C95W (white) N95 air-purifying filtering facepiece respirator. The complete respirator configuration is detailed on assembly matrix file name *1115.AMB.xls*, revision B, dated: 06/21/2021.

This request is granted. Approvals are granted only for documentation written in the English language. It is the manufacturer's responsibility to correctly translate materials desired to be produced in languages other than English. Approval number TC-84A-9363 has been assigned. This respirator is approved for protection against particulates at N95 filter efficiency level.

The approval label is included as an attachment to this letter. The abbreviated label has been accepted as submitted. The cautions and limitations are listed on the approval label. Only those assemblies affected by this request, or where new approval numbers are assigned, apply to this approval action. Production approval labels cannot include information on unapproved configurations.

The approved assembly consists of the parts as listed on the approval label and the assembly matrix. Parts are to be marked with the numbers indicated on the approval label in a legible and permanent manner (marking cannot be removed without evidence of its previous presence).

This certificate of approval is not an endorsement of the respirator by NIOSH, and such endorsement shall not be stated or implied in advertisements or other publicity. However, you may publicize the fact that this respirator has met the requirements of Title 42, Code of Federal Regulations, Part 84 (42 CFR 84).


No changes may be made to any respirators and accompanying documentation without prior written approval of NIOSH. Requests for changes must be submitted to NIOSH and a modification of this approval must be granted before changes are made.

Sincerely,

Jeffrey Peterson
Chief, Conformity Verification and Standards Development Branch

Enclosures

TC-84A-9363

 DEPARTMENT OF HEALTH & HUMAN SERVICES

Centers for Disease Control and Prevention (CDC)
National Institute for Occupational Safety and Health (NIOSH)
National Personal Protective Technology Laboratory (NPPTL)
626 Cochran Mill Road
Pittsburgh, PA 15236-0070
Phone: 412-386-4000
Fax: 412-386-4051
April 9, 2021

NIOSH Reference: TN-24584
Mfr. Reference: BNX002

Mr. Simon Ma
Chief Technology Officer
BNX Converting, LLC
16727 Park Row
Houston, TX 77084

Dear Mr. Ma:

The National Institute for Occupational Safety and Health (NIOSH) has reviewed the request referenced above and accepted February 4, 2021. This request is for approval of the A96-2 air-purifying filtering facepiece respirator for protection against particulates at a N95 filter efficiency level. The complete respirator configuration is detailed on the assembly matrix, file name *1112.AMB.xls*, revision 2, dated: 04/07/2021.

This request is granted. Approvals are granted only for documentation written in the English language. It is the manufacturer's responsibility to correctly translate materials desired to be produced in languages other than English. Approval number TC-84A-9308 has been assigned. This respirator is approved for protection against particulates at a N95 filter efficiency level.

The approval label is included as an attachment to this letter. The abbreviated label has been accepted as submitted. The cautions and limitations are listed on the approval label. Only those assemblies affected by this request, or where new approval numbers are assigned, apply to this approval action. Production approval labels cannot include information on unapproved configurations.

The approved assembly consists of the parts as listed on the approval label and the assembly matrix. Parts are to be marked with the numbers indicated on the approval label in a legible and permanent manner (marking cannot be removed without evidence of its previous presence).

This certificate of approval is not an endorsement of the respirator by NIOSH, and such endorsement shall not be stated or implied in advertisements or other publicity. However, you may publicize the fact that this respirator has met the requirements of Title 42, Code of Federal Regulations, Part 84 (42 CFR 84).

No changes may be made to any respirators and accompanying documentation without prior written approval of NIOSH. Requests for changes must be submitted to NIOSH and a modification of this approval must be granted before changes are made.

Sincerely,

Jeffrey Peterson
Chief, Conformity Verification and Standards Development Branch

Enclosures

TC-84A-9308



Sponsor:
Adam Ravat
BNX Convertting, LLC
16727 Park Row,
Houston, TX 77084

Sodium Chloride (NaCl) Aerosol Test Final Report

Test Article: A99
Study Number: 1332300-S01
Study Received Date: 18 Aug 2020
Testing Facility: Nelson Laboratories, LLC
6260 S. Redwood Rd.
Salt Lake City, UT 84123 U.S.A.
Test Procedure(s): Standard Test Protocol (STP) Number: STP0014 Rev 00
Deviation(s): None

Summary: This procedure was performed to evaluate particulate filter penetration as specified in 42 CFR Part 84 and TEB-APR-STP-0059 for requirements on a N95 respirator. Respirators were conditioned then tested for particle penetration against a polydispersed, sodium chloride (NaCl) particulate aerosol. The challenge aerosol was dried, neutralized, and passed through the test article at a concentration not exceeding 200 mg/m³. The initial airflow resistance and particle penetration for each respirator was determined.

According to 42 CFR Part 84.64, pretesting must be performed by all applicants as part of the application process with NIOSH. Results seen below are part of that pretesting and must be submitted to and accepted by NIOSH for respirator approval.

All test method acceptance criteria were met. Testing was performed in compliance with US FDA good manufacturing practice (GMP) regulations 21 CFR Parts 210, 211 and 820.



Trang Truong electronically approved for Study Director
Curtis Gerow
24 Sep 2020 17:04 (+00:00)
Study Completion Date and Time



Study Number 1332300-S01
Sodium Chloride (NaCl) Aerosol Test Final Report

Results: The NIOSH N95 filter efficiency as stated in 42 CFR Part 84.181 is a minimum efficiency for each filter of ≥95% (<5% penetration). The test articles submitted by the sponsor conform to the NIOSH N95 criteria for filter efficiency.

Test Article Number	Corrected ^a Airflow Resistance (mm H ₂ O)	Particle Penetration (%)	Filtration Efficiency (%)
1	17.1	0.779	99.221
2	18.1	1.52	98.48
3	17.3	3.16	96.84
4	17.2	0.629	99.371
5	17.3	1.76	98.24
6	17.4	2.04	97.96
7	17.2	3.61	96.39
8	17.3	1.73	98.27
9	17.6	1.69	98.31
10	17.9	0.418	99.582
11	17.7	0.584	99.416
12	19.1	0.490	99.510
13	18.3	0.526	99.472
14	17.5	0.799	99.201
15	17.5	0.383	99.617
16	18.4	0.581	99.419
17	17.8	0.380	99.620
18	18.1	0.298	99.702
19	18.6	0.478	99.522
20	17.5	0.898	99.102

^a The final airflow resistance value for each test article was determined by subtracting out the background resistance from the system.



Sponsor:
Adam Ravat
BNX Convertting, LLC
16727 Park Row,
Houston, TX 77084

Determination of Inhalation and Exhalation Resistance for Air-Purifying Respirators Final Report

Test Article: A99
Study Number: 1331743-S01
Study Received Date: 15 Aug 2020
Testing Facility: Nelson Laboratories, LLC
6260 S. Redwood Rd.
Salt Lake City, UT 84123 U.S.A.
Test Procedure(s): Standard Test Protocol (STP) Number: STP0145 Rev 05
Deviation(s): None

Summary: This procedure was performed to evaluate the differential pressure of non-powered air-purifying particulate respirators in accordance with 42 CFR Part 84.180. The air exchange differential or breathability of respirators was measured for inhalation resistance using NIOSH procedure TEB-APR-STP-0007 and exhalation resistance with NIOSH procedure TEB-APR-STP-0003. The differential pressure technique is a simple application of a basic physical principle employing a water manometer differential upstream and downstream of the test material, at a constant flow rate.

According to 42 CFR Part 84.64, pretesting must be performed by all applicants as part of the application process with NIOSH. Results seen below are part of that pretesting and must be submitted to and accepted by NIOSH for respirator approval.

The inhalation resistance criteria as stated in 42 CFR Part 84.180 is an initial inhalation not exceeding 35 mm water column height pressure. The test articles submitted by the sponsor conform to this NIOSH criterion for airflow resistance.

The exhalation resistance criteria as stated in 42 CFR Part 84.180 is an initial exhalation not exceeding 25 mm water column height pressure. The test articles submitted by the sponsor conform to this NIOSH criterion for airflow resistance.

All test method acceptance criteria were met. Testing was performed in compliance with US FDA good manufacturing practice (GMP) regulations 21 CFR Parts 210, 211 and 820.

Results:

Test Article Number	Inhalation Resistance (mm H ₂ O)	Exhalation Resistance (mm H ₂ O)
1	12.4	13.7
2	13.8	13.0
3	13.7	13.6



Robert Dieker electronically approved for Study Director
Curtis Gerow
04 Sep 2020 18:12 (+00:00)
Study Completion Date and Time

Filtration Report

Inhalation Exhalation Report



FDA Registration #: 3017489417



DEVICE REGISTRATION AND LISTING INFORMATION

Please review your registration. **Registration Date:** Oct 16, 2020
Registration Status: Active, Waiting for Registration Number Assignment

Section 01 Type of Registration	
Activities	MANUFACTURER COMPLAINT FILE ESTABLISHMENT
Registration Number	Not Yet Assigned
Section 02 Facility Name / Address Information	
Name	BNX CONVERTING, LLC
Address	BUILDING 1 16727 PARK ROW HOUSTON, TEXAS 77084 UNITED STATES
Section 03 Owner/Operator Information	
Owner/Operator Number	10078281
Contact Name	ILENIA TAMAYO
Company	BNX CONVERTING, LLC
Address	16727 PARK ROW BUILDING 1 HOUSTON, TEXAS 77084 UNITED STATES
Phone Number	(713) 936-2726
Fax Number	
Email Address	Compliance@bnx.com
Section 04 Official Correspondent Information	
OC Contact Name	ILENIA TAMAYO
OC Business Name	BNX CONVERTING, LLC
Address	16727 PARK ROW BUILDING 1 HOUSTON, TEXAS 77084 UNITED STATES
Phone Number	(713) 936-2726
Fax Number	
Email Address	Compliance@bnx.com
Section 05 Trade Names	
Section 06 Listings	
Listing #1	
Listing Number	D422096
Listing Status	ACTIVE
Created Date	Oct 16, 2020 12:18:03 PM ET
Submission Number	
Proprietary Names	A96 Protective Mask
Section 07 PIN/PCN Details	
PIN	50304562
PCN	21459164

FDA Establishment Registration

 佛山中纺联检验技术服务有限公司 CNTAC Testing Service Co.,Ltd.(Foshan)	
Testing Report Report No: ZFLJ2642376A	Security website: www.fcl-sz.org.cn Security code: 6245716545 Page 1 of 8
Applicant Information Applicant Name: BNX CONVERTING,LLC. Applicant Address: 16727 Park Row Houston TX 77084 USA Manufacturer: BNX CONVERTING,LLC.	
Sample Information Sample Description: A96 Duckbill mask Style No: A96 Brand: BNX Converting LLC Sample Quantity: 65 pieces Size specification: 240mmX95mm Material Components: 6 layers 1. 50gsm spunbond pp 2. 25gsm meltblown 3. 25gsm meltblown 4. 15gsm spunbond pp 5. 25gsm skin friendly (hydrophilic) nonwoven 6. 25gsm skin friendly (hydrophilic) nonwoven	
- Sample Receiving Date: 2020-08-14 - Report Date: 2020-08-26 - The original sample is stuck on the last paper.	
Test Performed Judgement according to: GB 2626-2019 Respiratory protection— Non-powered air-purifying particle respirator - Selected test(s) as requested by applicants. For details, refer to attached page(s).	
Pronounce The results shown in this report refer only to sample(s) tested unless otherwise stated. All the items are performed in the standard conditions, except the noted cases. Except for the requirement of the client, the test results and the conformity judgement of this report do not take the uncertainty of the test results into account.	
Signed for and on behalf of CNTAC Testing Service Co.,Ltd.(Foshan) Approved by: 	
	
广东省佛山市南海区西樵镇南岗技术创新中心一、三、四楼1,364F, Nanliang Technology Innovation Center, Xiqiao Nanhai District, Foshan City, Guangdong, China Tel: (86 757)86850633/868906655 Fax: 86850633 Http://www.fcl.org.cn 若对检测结果有异议,应于收到报告之日起15日内向检测单位提出,逾期不予受理。	

CNTAC KN95 Test Report



FDA Registration #: 3017489417



HOHENSTEIN Textile Testing Institute GmbH & Co. KG
Schlosssteige 1, 74387 Bönnigheim, Germany

OEKO-TEX®
CONFIDENCE IN TEXTILES

CERTIFICATE

The company

BNX Converting LLC
16727 Park Row
Houston, TX - 77084, UNITED STATES

is granted authorisation according to STANDARD 100 by OEKO-TEX® to use the STANDARD 100 by OEKO-TEX® mark, based on our test report **21.0.74590**

OEKO-TEX®
CONFIDENCE IN TEXTILES
STANDARD 100
21.HUS.74590 HOHENSTEIN HTTI

Tested for harmful substances
www.oeko-tex.com/standard100

for the following articles:

Respiratory masks produced from nonwoven fabric made of 100 % polypropylene in white, pink, teal and black; including accessories (elastic tape, metal and plastic wire, pad print in black).

The results of the inspection made according to STANDARD 100 by OEKO-TEX®, Annex 4, product class II have shown that the above mentioned goods meet the human-ecological requirements of the STANDARD 100 by OEKO-TEX® presently established in Annex 4 for products with direct contact to skin.

The certified articles fulfil requirements of Annex XVII of REACH (incl. the use of azo colourants, nickel release, etc.), the American requirement regarding total content of lead in children's articles (CPSIA; with the exception of accessories made from glass) and of the Chinese standard GB 18401:2010 (labelling requirements were not verified).

The holder of the certificate, who has issued a conformity declaration according to ISO 17050-1, is under an obligation to use the STANDARD 100 by OEKO-TEX® mark only in conjunction with products that conform with the sample initially tested. The conformity is verified by audits.

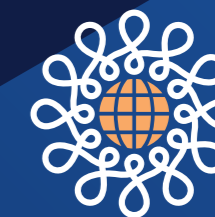
The certificate 21.HUS.74590 is valid until 31.10.2022

Bönnigheim, 01.10.2021

Juana Schramm
Dipl.-Ing. (FH) Juana Schramm
Head of Certification Body OEKO-TEX®

OEKO-TEX® Association | Genferstrasse 23 | P.O. Box 2006 | CH-8027 Zurich

OEKO-TEX®
CONFIDENCE IN TEXTILES
STANDARD 100
21.HUS.74590 HOHENSTEIN HTTI





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Email: sales@bnx.com

For more information go to www.BNX.com

