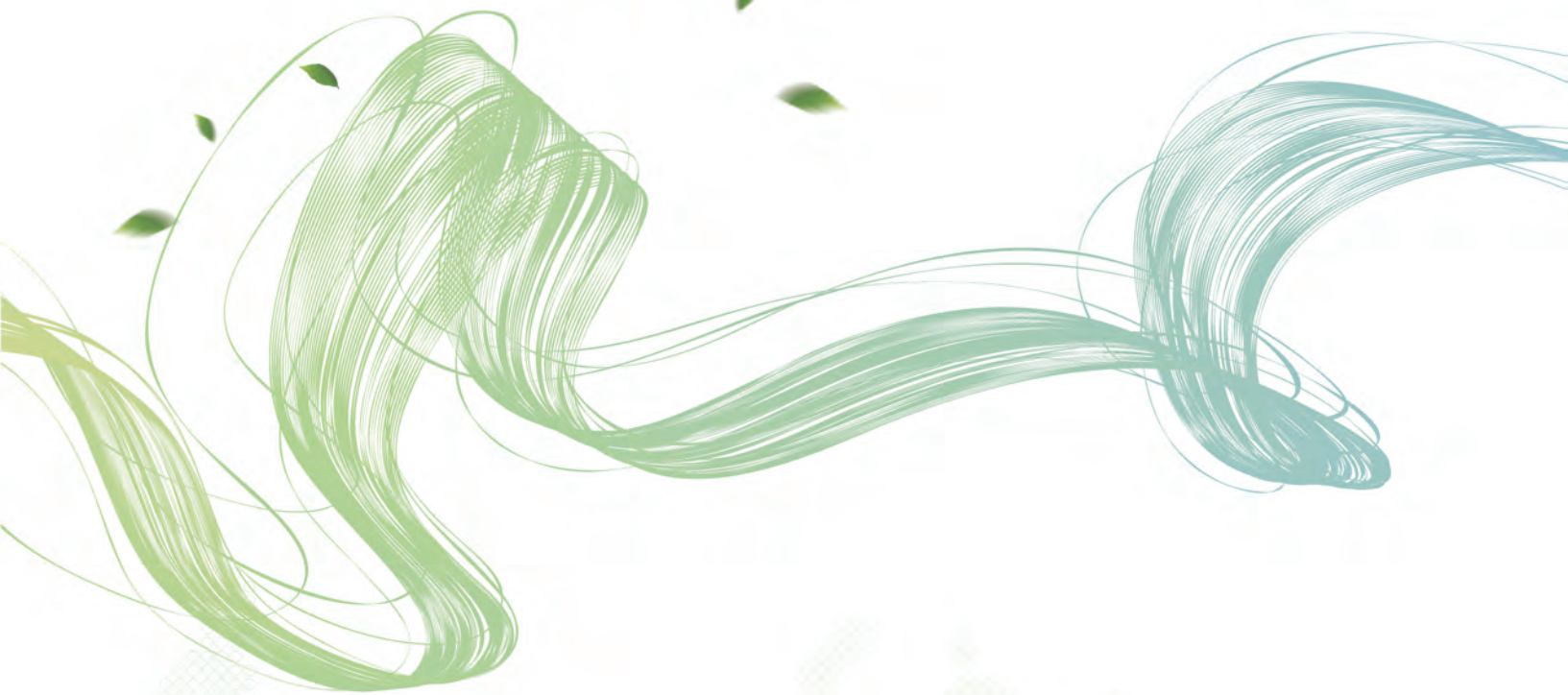




Activated Carbon  
Air Cleaner  
Aqua Cleaner

# SPECIALIZED FILTER COMPANY

With an Ongoing Commitment to  
Ensuring Indoor Air and Water Quality



# 회사 소개 Company Introduction

## 회사명 | Company name

(주)쓰리에이씨 3AC CO.,LTD.

## 본사 주소 | Address of head office

서울시 금천구 가산디지털 1로, 168, C-401호

C-401, 168, Gasan digital 1-ro, Geumcheon-Gu, Seoul, 153-786, S.KOREA

## 주력 상품 | Main product

에어필터, 수처리필터, 활성탄

Air Filter, Water purification Filter, Activated Carbon

## 공장&실험실 | Factories & Laboratories

- 경기도, 한국 : 조립 공장 & 연구소 Gyeonggi-Do, Korea ; Assembly Factory & Laboratory
- 전라북도, 한국 : 사출 & 조립 공장 & 연구소 Jeollabuk-do, Korea : injection mold & Assembly factory, Laboratory
- 전라남도, 한국 : 사출 & 조립 공장 & 연구소 Jeollanam-do, Korea ; injection mold & Assembly Factory & Laboratory
- CHONBURI, THAILAND : 사출 & 조립공장 & 연구소 Chonburi, Thailand ; injection mold & Assembly Factory & Laboratory
- SUZHOU, CHINA : 사출 & 조립공장 & 연구소 Suzhou, China : Injection mold & Assembly Factory & Laboratory

## 수출 | Export



HWASEONG, GYEONGGI-DO  
The first plant



HWASEONG, GYEONGGI-DO  
Laboratory



JEONG EUP, JEOLLABUK-DO,  
KOREA(The third plant)



JANGSEONG, JEOLLANAM-DO  
The second plant



3AC THAILAND FACTORY



3AC CHINA FACTORY

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# 회사 연혁 Company History

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## 3AC, Co., Ltd.

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- 2007.04 주식회사 쓰리에이씨 창립 Established as 3AC Co.,LTD
- 2008.12 삼성전자 중국 법인 수출 Exported filters to Samsung Electronics China
- 2009.07 COWAY 필터 납품 Supplied filters to Coway
- 2010.10 ISO 9001 & 14001 인증 Acquired ISO 9001 & ISO 14001 (international Environment Management Certification)
- 2011.06 제 1공장 (화성) 설립 Established Hwaseong Factory
- 2011.12 기업부설연구소 설립 Established affiliated research center of 3AC CO.,LTD
- 2013.11 제 50회 무역의 날 수출 1백만불 탑 수상 Awarded [Top exports of \$ 1 million] on the 50th Trade day
- 2013.12 태국법인 3AC THAILAND 설립 Established 3AC(Thailand) Co., Ltd
- 2014.09 기술혁신형 중소기업(INNO-BIZ) 확인 Received Innobiz status. Chosen as an industrial convergence leading company
- 2015.08 환경부 주관 한국 우수환경산업체 지정 Selected as leading Environmental Company by the Ministry for Environment, Korea
- 2015.10 경기도 유망 중소기업 인증 Certified as a promising mid-sized firm in Gyeonggi-do
- 2016.02 중소기업 스마트공장 추진사업 수행(산업부, 미래부, 삼성전자) Performed promotion project of Smart Factory
- 2016.11 중국법인 SUZHOU 3AC 설립 Established Suzhou 3AC(China) Co., Ltd
- 2016.11 2016 산업융합선도기업 선정 Selected as 2016 Industry Convergence Leading Company
- 2016.12 제 53회 무역의 날 수출 3백만불 탑 수상 Awarded [Top exports of \$ 3 million] on the 53th Trade day
- 2017.07 주식회사 쓰리에이씨 제 3공장 (정읍) 설립 Established 3AC 3rd Factory(Jeongeup, Korea)
- 2017.09 태국법인 3AC THAILAND 신 공장 설립 Built new 3AC(Thailand) Factory

## 박람회 참가

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- 2010.04 2010 코엑스 국제공기청정 및 그린환경전시회 출품  
Participated to 2010 World Air Humidifier and Green Environment Exhibition in Coex
- 2010.09 2010 독일 IFAT 출품 Participated to 2010 International Fair Trade Association (IFAT GERMANY) in Factory
- 2016.01 2016 미국 AHR EXPO ORLANDO 출품 Participated to 2016 AHR Expo Orlando
- 2016.09 2016 독일 IFA BERLIN 출품 Participated in IFA Berlin 2016 trade show in Germany
- 2016.10 2016 독일 FILTECH 전시회 출품 Participated in FILTECH 2016 the Filtration event in Germany
- 2016.11 2016 미국 FILTRATION 출품 Participated in FILTRATION 2016 Philadelphia
- 2017.01 2017 미국 AHR EXPO LAS VEGAS 출품 Participated to 2017 AHR Expo Las Vegas
- 2017.05 2017 중국 ISH BEIJING 출품 Participated to ISH Beijing 2018
- 2017.06 2017 중국 CIEPEC BEIJING 출품 Participated to CIEPEC Beijing
- 2017.08 2017 중국 CAPE 출품 Participated to CAPE Beijing 2017

# 생산 품목 APPLICABLE ITEMS

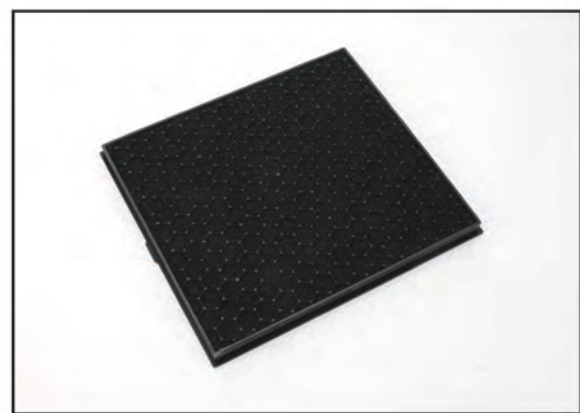
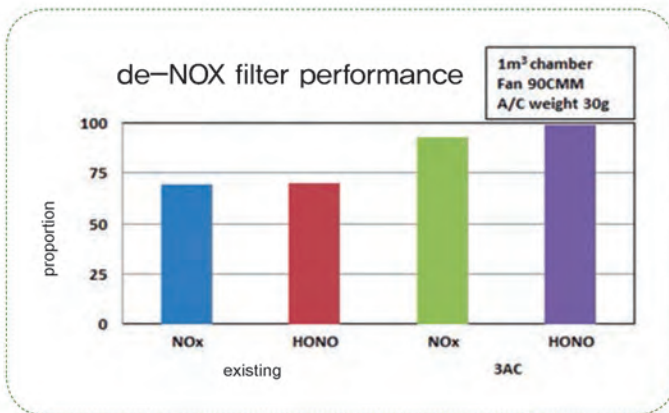
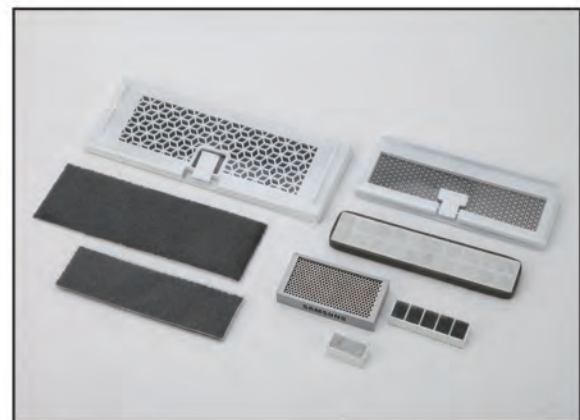
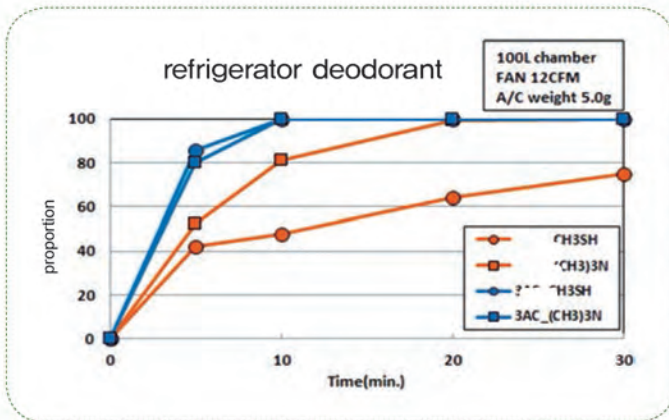
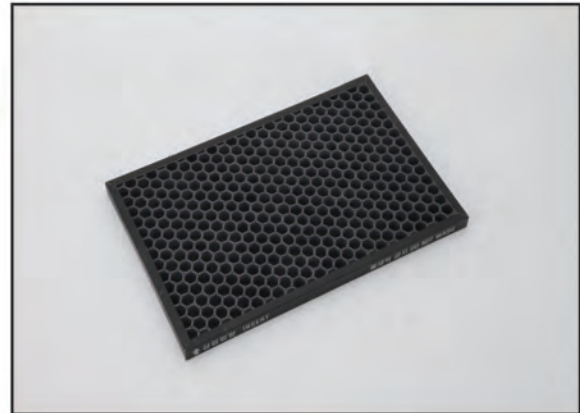
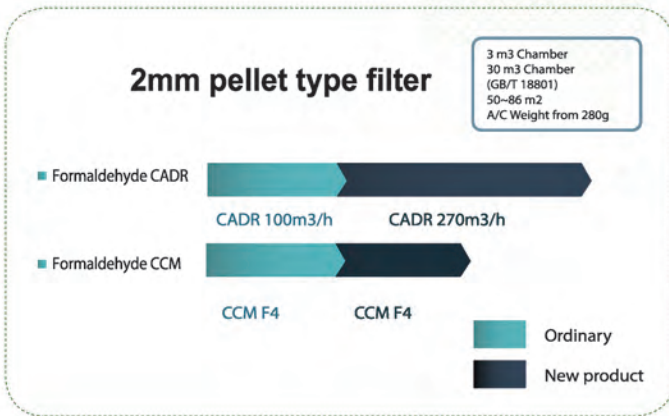
분류(Classification)		기능(Function)
탈취 필터 (DEODORIZATION Filter) 청정기(Air cleaner), 에어컨(air conditioner)	활성탄 (Activated Carbon)	<ul style="list-style-type: none"> <li>알데히드 제거 For removal Aldehyde</li> <li>암모니아, 하이드로젠 황화물 제거 For removal Ammonia, Hydrogen Sulfide</li> <li>생활 악취 제거 For removal life odor</li> <li>메틸메르캡탄 제거 For removal Methyl Mercaptan</li> <li>은입자 항생 For Ag(silver nano) Antibiotics</li> <li>트리에틸아민 제거 For removal Triethylamine</li> <li>포름알데히드 제거 For removal Formaldehyde</li> </ul>
촉매 필터 (Catalyst Filter) 청정기(Air cleaner), 에어컨(air conditioner), 냉장고(Refrigerator)	광촉매(Photocatalyst)	<ul style="list-style-type: none"> <li>새집증후군 방지 Prevention sick building syndrome</li> </ul>
	저온촉매(Low temperature Catalyst)	<ul style="list-style-type: none"> <li>생활 악취 제거 For removal life odor</li> </ul>
	오존필터(Ozone FILTER)	<ul style="list-style-type: none"> <li>살균, 악취 제거 For sterilization, odor removal</li> </ul>
집진 필터 (Dust Collection Filter) 청정기(Air cleaner), 에어컨(air conditioner)	극세사(Microfiber)	<ul style="list-style-type: none"> <li>프리필터(완제품) PRE FILTER(complete product)</li> </ul>
	부직포 필터(Non-woven FILTER)	<ul style="list-style-type: none"> <li>미디움 천연부직포 필터 Medium natural Non-woven FILTER</li> </ul>
	HEPA FILTER	<ul style="list-style-type: none"> <li>미세먼지 제거(H11,12,13) For removal the fine dust(H11,12,13)</li> </ul>
정수 필터 (Water Purification Filter) 정수기(water purifier), 얼음 정수기냉장고 (ice&water dispenser refrigerator)	활성탄 필터(Carbon block filter)	<ul style="list-style-type: none"> <li>염소 제거 For removal chlorine</li> <li>5um 이상 입자 제거 For removal particle in water(&gt;5um)</li> </ul>
	혼합 필터(Compound filter)	<ul style="list-style-type: none"> <li>염소 제거 For removal chlorine</li> <li>0.5um 이상 입자 제거 For removal particle in water(&gt;0.5um)</li> <li>건강에 영향을 주는 중금속, 유기물/무기물 성분 제거 For removal health effect(heavy metal, inorganic/organic materials)</li> </ul>



# 탈취필터 DEODORIZATION FILTER

(주)3AC의 자체개발한 활성탄을 사용한 탈취 필터는 고성능, 저압손, 저비용 맞춤형 필터입니다.

The Deodorization filter using 3AC own developed activated carbon is high performance, low pressure, low cost Customized filter.



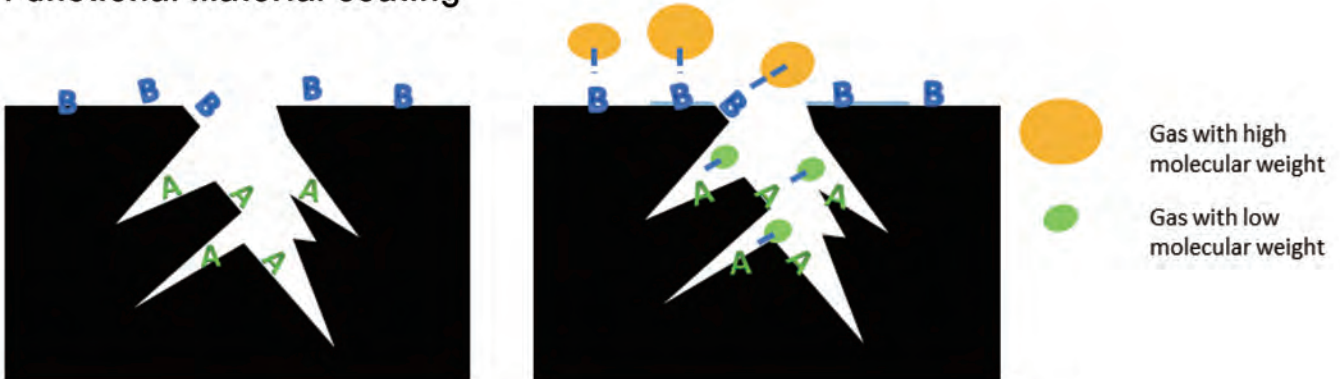
# 활성탄 ACTIVATED CARBON

일반 가정 및 산업체, 공공시설에서 발생하는 악취, 유해가스 제거용 활성탄입니다.  
 3AC가 자체 개발한 활성탄은 특정 가스에 제거력이 우수합니다.  
 자체 생산을 통한 가격경쟁력을 확보하였습니다.

Activated carbon for removing offensive odors and harmful gases generated from households, industries, public facilities. Activated Carbon using 3AC own developed has excellent removability for specific gases Ensure High Quality and competitive price through own production.



## Functional material coating



## ACTIVATED CARBON

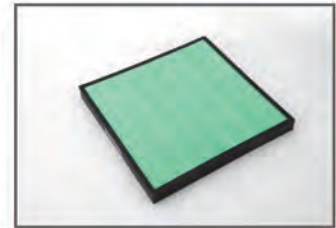
MODEL	TARGET	MATERIAL	TYPE
3AC-KAF-101	Formaldehyde	Activated Carbon catalyst	Pellet Granule Sheet Ball Fabric
	Acetaldehyde		
	Ammonia		
	Acetic acid		
	Toluene		
	Benzene		
	VOCs		
3AC-KRF-201	Methyl Mercaptan		
	Trimethylamine.		
	Hydrogen sulfide		
3AC-KIF-301	NOx		
	SOx		
3AC-KOZ-401	Ozone		
3AC-KWF-501	Chlorine		

## 집진 필터 DUST COLLECTION FILTER

- 10~30 $\mu$ m 먼지 제거용 극세사 프리 필터(포집 효율 75~85%)
- 0.3 $\mu$ m 먼지 제거용 미디움 필터(포집 효율 65~95%)
- 0.3 $\mu$ m 미세 먼지 제거용 헤파필터(포집 효율 99.97%)
- 10~30 $\mu$ m Micro fibre pre filter for removal dust (Collection efficiency more than 75~85%)
- 0.3 $\mu$ m Medium filter for removal dust (Collection efficiency more than 65~95%)
- 0.3 $\mu$ m HEPA filter for removal Ultrafine dust (Collection efficiency 99.97%)

HEPA SPECIFICATION(H13)				
Filter class	MPPS integral value		MPPS local value	
	min. efficiency[%]	max. penetration[%]	min. efficiency[%]	max. penetration[%]
H10	85	15	*_	*_
H11	95	5	*_	*_
H12	99.5	0.5	*_	*_
H13	99.95	0.05	99.75**	0.25**
H14	99.995	0.005	99.975**	0.025**

PRE FILTER Mesh Specification				
Mesh Count	Diameter	Mesh Opening	Open Area	Thickness
(inch)	(micron)	(micron)	(%)	(micron)
90	100	214	71	70
70	65	300	67	84
50	110	398	60	140
36	210	600	54	1520
25	230	780	59	420



## 정수 필터 FILTER WATER

국내 기술로 개발하고 제작된 상품으로, 안정성이 입증된 재료를 사용하여 인체에 무해합니다. 컴팩트한 사이즈지만 다양한 유해 물질을 효과적으로 제거합니다.

Our domestically developed and manufactured products use safety-verified ingredients and are therefore harmless to the human body. Despite its compact size, the product effectively removes various harmful substances.



		Carbon block filter	Compound filter
Capacity		~1,000 gallons (3,785 liters)	~300 gallons (1,136 liters)
Maxium usage life		6 months	6 months
Particulate		5 $\mu$ m	0.5 $\mu$ m
Operating conditions	Temperature	33~100°F (4.4~37.8°C)	34~100°F (1~38°C)
	Pressure	20~125 PSI	30~125 PSI
	Flow rate	0.5 GPM (1.9 LPM)	0.5 GPM (1.9 LPM)

# (주)쓰리에이씨 부설연구소 장비 3AC R&D

구분(Area)	규격(Standard)	상태(Condition in 2014)	장비사용처(Equipment used)
활성탄 (Activated carbon)	KS M 1802	Packing density, loss on drying, pH BET specific surface area	pH meter, oven, scale BET
	Gas absorption quantity Gas chromatograph/mass	GC break through curve	GC/PDD, GC/FID GC/MS
공기 정화 (Air purifier)	KS C 9314	Air volume/pressure loss test Noxious gas removal rate test Fine dust removal rate test	FC2000 (Pressure loss measurement) 8m <sup>3</sup> chamber, gas generator 30m <sup>3</sup> chamber, particle counter (OPC)
	KACA002-132	Deodorizing test Air dust collection capacity	4m <sup>3</sup> chamber, gas generator 30m <sup>3</sup> chamber particle counter (OPC)
	JEM A 1467	Deodorizing ability test Dust collecting test	1 m <sup>3</sup> chamber, gas generator 30m <sup>3</sup> chamber, particle counter (OPC)
	GB/T 18801	Air intake quantity for particulate matter filtration Air intake quantity for gas contaminant filtration	30m <sup>3</sup> chamber, particle counter (OPC) 3/30m <sup>3</sup> chamber, analytical equipment
집진 필터 (Dust collecting filter)	RS K 0002 (ASHRAE 52.2)	DHC, MERV, differential pressure	Air flow duct, neutralizing machine, optical particle counter (OPC), particle generator, Dust Feeder
	RS K 0003 (EN 1822-5)	HEPA performance test	HEPA duct, neutralizing machine, particle generator, condensation particle counter (CPC)
정수 필터 (Water filter)	NSF STANDARD 42,53  Drinking water management (Water Mark)	Liquid particle removal rate test  Chlorine removal rate test  Turbidity removal rate test	Liquid particle counter  pH meter  Chlorine meter  Turbidity meter  TDS meter  Hardness meter (Ca)  Flow meter



# (주)쓰리에이씨 부설연구소 3AC R&D

## 부설연구소 설립 | Establishment

- 목표: 맑은 물, 깨끗한 공기, 쾌적한 환경  
Object : Clean water, Clean air, Clean environment
- 2011년 설립  
Established in 2011
- 화학 촉매, 활성탄 연구 개발  
Research an Advanced Chemical Catalyst, Activated carbon
- 다년간의 연구 경험 바탕  
Based on the experience of many years of research

## 연구 개발 네트워크 구축 | Build a R&D Network

- 신소재 개발과 기술 혁신  
New material development and Technical innovation
- 산연 협력 - 연세대학교, 포항공과대학교, 성균관대학교, 아주대학교  
Industry-Education - Yonsei University, Pohang University of Science and Technology, Sungkyunkwan University, Ajou University  
Build Network a Cooperation Development and Industry-Education
- 산연 협력 연구원  
Industrial-Educational Researcher  
-Korea Institute of Industrial Technology, Korea Apparel Testing and Research Institute  
-Developed reliable products for the future by sharing data and cooperating with research laboratories in Korea.



## 탈취 필터 | FILTER DEODORANT

- 공기청정기 Air cleaner
- 에어컨 Air conditioner
- 비데 Bidet
- 냉장고, 김치냉장고 Refrigerator, Kimchi refrigerator
- 가スマ스크 Gas mask
- 진공청소기 Vacuum
- 반도체 크린룸 Semiconductor clean room

## 집진 필터 | FILTER DUST

- 극세사 프리필터 & 고성능 HEPA(H13) MEDIA  
Microfiber Pre-FILTER & high-performance HEPA(H13) MEDIA
- 공기청정기 Air cleaner
- 에어컨 Air conditioner
- 반도체 청정실 Semiconductor clean room
- 산업용 공기 조화 Industrial air-conditioning
- 진공청소기 Vacuum

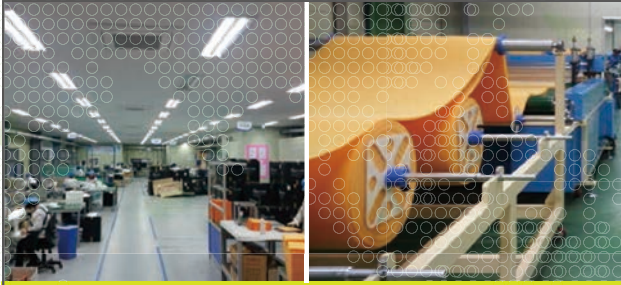
## 정수 필터 | FILTER WATER

- 정수 Water purifier
- 냉장고 Refrigerator
- 싱크대 밑 Under sink
- 실험실 Laboratory
- 산업용 Industry

## 활성탄 | ACTIVATED CARBON

- 펠릿 타입 PELLET
- 과립 타입 GRANULE
- 시트 타입 SHEET
- 분말 타입 BALL
- 페브리크 타입 FABRI

# 공장 설비 현황 Plant facility status



경기 화성 공장 시설 Gyeonggi Hwaseong factory Plant facility status

NO.	설비명(NAME)	스펙(M/C SPEC)	수량(M/C QTY)
1	코팅팬 COATING MACHINE	150L, 45RPM	3
2	건조기 DRYER OVEN MACHINE	1.4루베(m <sup>2</sup> ), 230°C, 20Kw	5
3	교반기 AGITATOR MACHINE	250L, 180 RPM	4
4	드라이 호퍼 HOPPER DRYER	150L, 230°C	2
5	리본 믹서 RIBBON MIXER	500L, 300RPM	1
6	핫멜트유닛 HOT MELT APPLICATOR	300 x 5000mm, 0.5m/sec	2
7	슬리터 SLITTER MACHINE	1850mm, 15.7m/sec	1
8	수직기 VERTICAL CUTTING MACHINE	3000x2500mm	1
9	통슨기 THOMSON MACHINE	1000 x 2000mm, 상압식	2
10	재단기 BOARD CUTTER	600mm, knife 방식	6
11	열프레스 HEAT PRESS MACHINE	450 x 450mm, 350°C	12
12	절곡기 PLEATS MACHINE	1200mm, 15m/min, knife방식	1
13	롤트리밍 ROLL TRIMMING MACHINE	1150mm, 1.8m/sec	1



전남 장성 공장 시설 Jeonnam Jangsung factory Plant facility status

NO.	설비명(NAME)	스펙(M/C SPEC)	수량(M/C QTY)
1	사출성형기 INJECTION MOLDING MACHINE	680 TON	1
2	사출성형기 INJECTION MOLDING MACHINE	580 TON	1
3	사출성형기 INJECTION MOLDING MACHINE	380 TON	4
4	사출성형기 INJECTION MOLDING MACHINE	350 TON	2
5	사출성형기 INJECTION MOLDING MACHINE	250 TON	1
6	사출성형기 INJECTION MOLDING MACHINE	170 TON	3
7	사출성형기 INJECTION MOLDING MACHINE	130 TON	1



태국 법인 공장 시설

3AC Thailand Plant facility status



NO.	설비명(NAME)	스펙(M/C SPEC)	수량(M/C QTY)
1	사출성형기 INJECTION MOLDING MACHINE	850 TON	1
2	사출성형기 INJECTION MOLDING MACHINE	700 TON	2
3	사출성형기 INJECTION MOLDING MACHINE	480 TON	1
4	멜팅기 HEATING MACHINE	500*350	2
5	몰드 MOLD T/C	1.5kw, Max 90	1
6	온도 조절 장치 CONTROLLER MACHINE	0~400°C	3
7	자동 적재기 AUTO LOADER	3.7kw	4
8	드라이 호퍼 HOPPER DRYER	200 KG	4
9	압축기 COMPRESSOR	20 HP	1
10	제습 장비 AIR DRYER	1/2 HP	1



#### **3AC CO., LTD.**

Rm401,Woolim Lion's Valley Building C, 371-28 Gasan-Dong,  
Geumcheon-Gu, Seoul, 08507, S.KOREA  
Tel +82-2-2026-2223 Fax +82-2-2026-2225  
Homepage <http://www.3ac.co.kr>

#### **3AC Thailand**

Phase 4 Unit B2 of the Factory at 789/32 Moo 1,  
Nong Kham Subdistrict, Sriracha District, Chonburi  
Thailand 20230  
Tel +66-38-348-670 ~1 Fax +66-38-348-669

#### **SUZHOU 3AC CO.,LTD**

Floor 3, Building No.4 Industrial Defense, No.333  
Xingpu Road Suzhou Industrial Park  
Jiangsu, 215126, China