



# **BLOMA**

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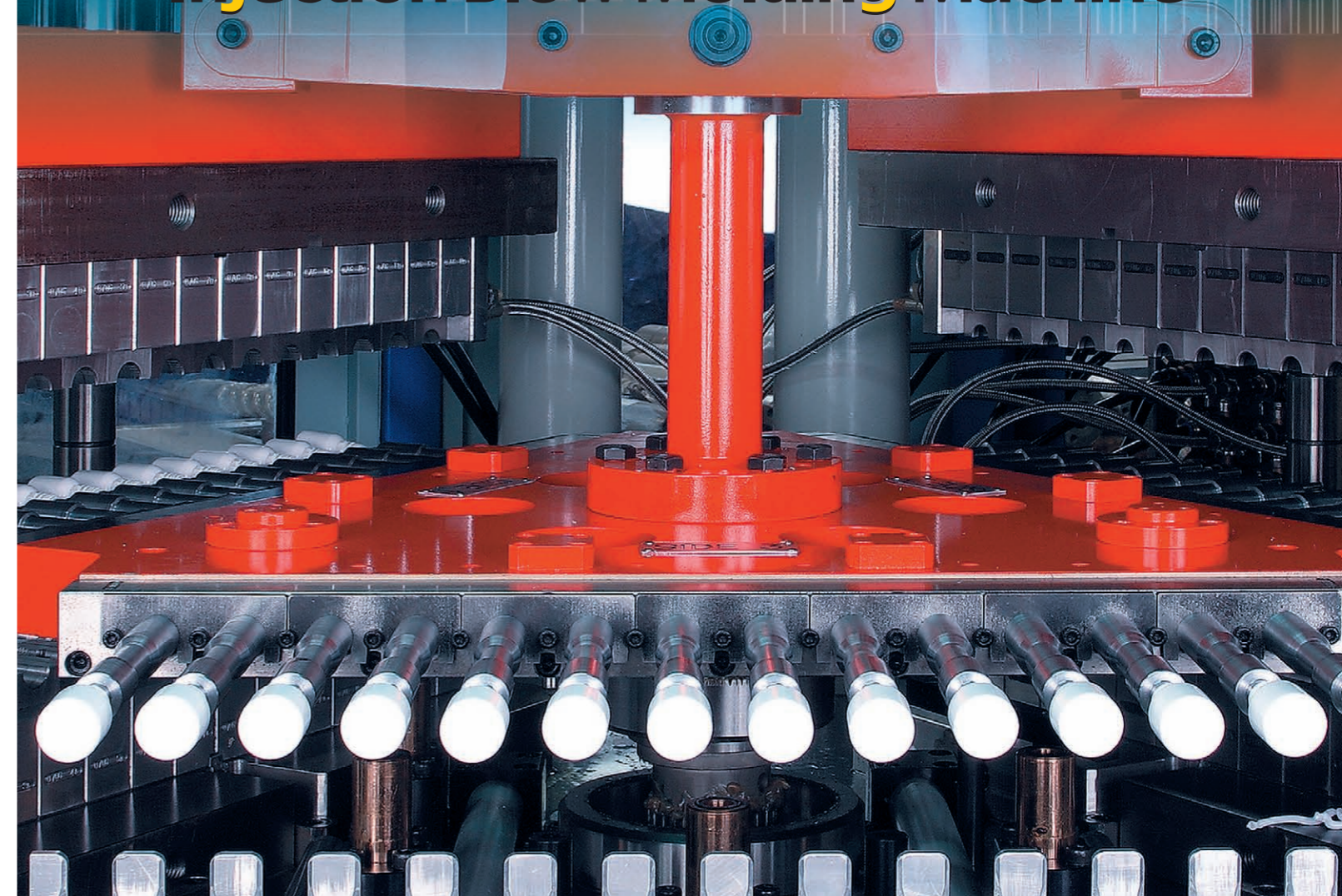
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# **BLOMA**

## **Injection Blow Molding Machine**



# 고 신뢰성, 고 생산성

# HIGH PRODUCTION CONSISTENCY WITH FULL RELIABILITY

외관 및 치수가 정밀하고 주입구의 밀폐성이 우수한 고급용기를 스크랩 없이 전자동으로 대량생산 할수있는 최적의 인젝션브로우 성형기입니다.

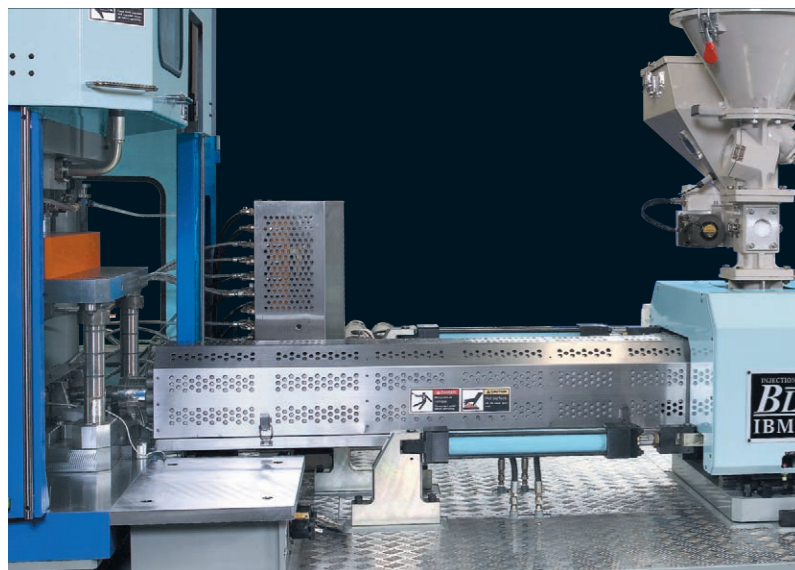
## 특징

- 철저한 사용자 중심의 각부 구조는 조작이 매우 쉽고 안전하며 금형교체를 쉽고 빠르게 할 수 있습니다.
- 일체형 철판구조의 주 프레임은 각 장치들의 정밀도와 신뢰성, 생산품의 균일성 및 안정성을 보장 합니다.
- 기계, 유압, 전기적 다중 안전장치는 조작자 및 금형을 안전하게 보호합니다.
- 독특한 구조의 형체장치 및 사출장치는 고속 동작시에도 정밀도가 높고 에너지 효율이 높습니다.
- 게이트형 안전문은 기계의 설치면적이 적고 금형 교체시나 수동조작시 매우 편리합니다.

BLOMA is one of the pioneers in the field of manufacturing superiorly designed "STATE OF THE ART" IBM Machines in accordance with safety standards. IBM Machines are designed for ensuring mass production of bottles & container having excellent quality surface finish, precisely calibrated neck, air tight containers with absolutely no generation of scrap.

## OUTSTANDING FEATURES OF MACHINE

- Unique machine design ensure reduction in cycle time, energy savings and reduction in floor space.
- Solid steel structure to main base frame guaranteeing full rigidity, stability and reliabilities.
- Operational excellence and stable control system.
- Specially designed Injection & Clamping bring high energy efficiencies with full accuracies even in peak speed mode.
- Multi safety devices incorporated in Mechanical, Electrical, Hydraulic Operations ensures Mold protection and Operator Safety.
- Quick & Safe Mold Changing on account of easy accessibility and with change over operations facing on operator side.
- Flexibility for using Molds used on other IBM machines.
- Sliding safety doors are useful for mold changing and performing manual operations with minimum space utilization during installation process.
- Ease of maintenance and replacement of spares due to visually clear accessibility of all parts & components.

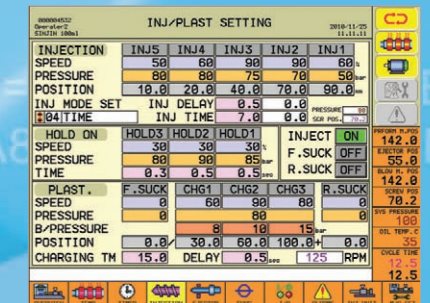


## 사출장치

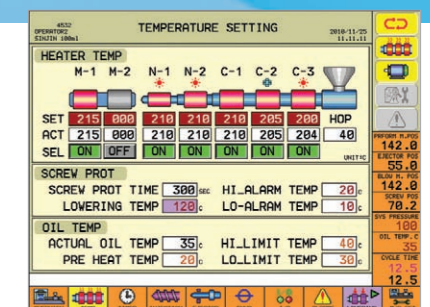
- 낮은 사출압력에서도 빠른 사출속도 - 최적의 사출조건설정 제공.
- 복합적(시간, 거리, 속도, 압력) 사출제어기능 - 최적의 사출조건 설정 제공.
- 사출장치 운동부 직선베어링 장착 - 정밀 사출제어 및 반영구적 내구성.
- PID제어 6조 온도제어장치 - 최적의 사출조건설정 제공.
- 세라믹히터 및 쿨링팬 장치.

## INJECTION UNIT

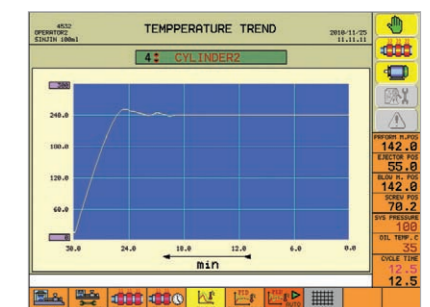
- Optimized Injection conditions even under high injection speeds and low injection pressures.
- Multiple Injection Control System (time, distance, speed & pressure) ensures precise and excellent Injection Consistencies.
- Equipped with Linear Motion Bearings on moving Injection unit guarantees accurate injection control with full reliability.
- PID Control 6 Zones temperature control arrangement provides operation consistency during injection operations.
- Use of highly advanced Ceramic Heaters and Cooling fans maintain desired temperatures at every stage of heating and cooling operation.



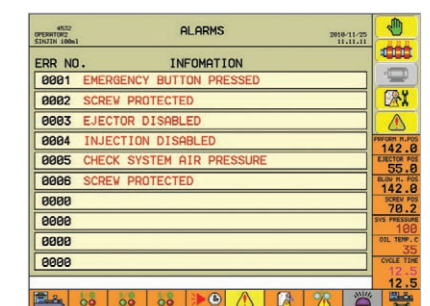
Injection Setting



Temp Setting



Temp Trend



Alarms

## 제어시스템

- 마이크로 프로세서 제어.
- 10.4" LCD 터치 컬러 모니터.
- 다양하고 이해하기 쉬운 그래픽 화면.
- PID 온도 제어 기능.
- 100가지의 제품성향데이터 저장기능.
- 자기진단, 기계이상경보, 기계가동 이력관리 기능.
- 제품성형수량 관리 및 품질통계관리 기능.

## CONTROL SYSTEM

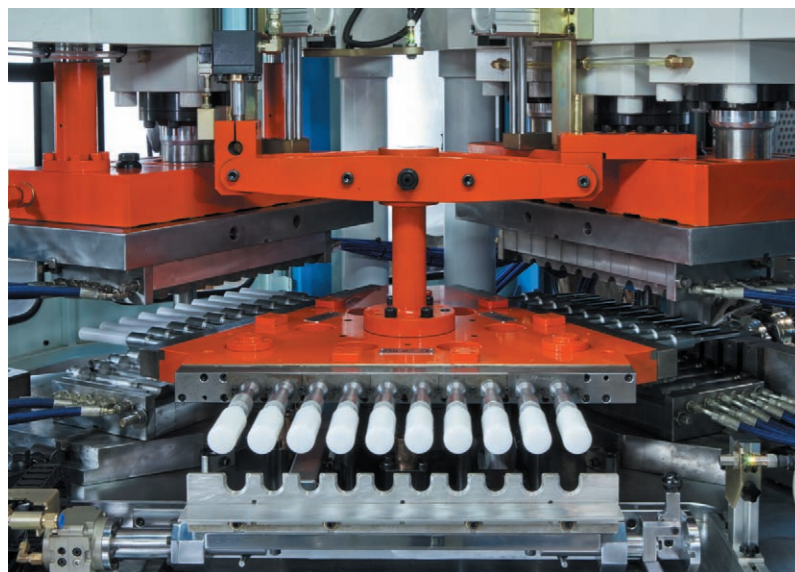
- User friendly energy efficient Micro processor Control with touch screen control system and easy to understand graphic screens.
- 10.4" LCD Touch Color Monitor.
- Storing of up to 100 Modules of Mold Data Saving.
- PID Temp. Control Function.
- Easy Statistical way of controlling & managing product quantity & quality settings.
- Self Diagnosis and monitoring functions.

NOTE : Due to continuous improvements, specifications are subject to change without notice. Productivity and accuracies could vary with material, molding conditions & operators skills.



**IBM65-E50**

**FRONT RUNNER WITH PROVEN CREDENTIAL IN MANUFACTURING HIGHLY ADVANCED IBM MACHINES USING MODERN TECHNOLOGY**



● Proven technology to successfully blow even intricate and critical shapes of bottles with full dimensional accuracies for ever changing needs of Cosmetic & Pharmaceutical industries.

**형체장치 및 인덱스장치**

- 형체력과 열팽창으로 인한 변형에도 고정밀도 유지.
- 넓은 간격의 고정형태이바 구조-금형교체 용이.
- 3점직압식 형체장치-균일한 형체력, 금형마모 최소화.
- 고정밀 인덱스장치-고속운동, 고신뢰성, 반영구적 수명.
- 위치센서 및 기계적, 전기적, 유압의 다중 안전장치, 금형보호장치.
- 레이저형 제품 검출 장치-정밀한 코어로드 보호기능.

**3 POINT CLAMPING UNIT WITH HIGHLY PRECISED INDEXING UNIT**

- 3 Point High Stiffness Vertical Clamping Unit facilitates unit wise uniform clamping force ensuring minimized mold abrasion.
- Highly precised indexing device results in to high speed performance ensuring improved machine life with full reliability.
- Designed to assure high precision and accuracies even under thermal expansions and with varying clamping forces.
- Swift mold change on account of Wide & Fixed Tie Bars.
- High safety standards by incorporating positioning sensors and safety devices for Mechanical, Electrical, Hydraulic operations as well as Mold Safety Devices.
- Laser Sensors for Bottle Ejection with full protection of Core Rods.

**■ Specification**

Item	IBM-40	IBM-65	IBM-85	IBM-135	
Screw diameter(mm)	Ø45	Ø50	Ø55   Ø60	Ø70	
Max. Shot volume(HDPE.g)	180	240	310   380	560	
Preform mold clamping force(tons)	35	50	70	115	
Blow mold clamping force(kn)	7	14	14	24	
Max. Swing radius(mm)	500	650	650	880	
Trigger bar length(mm)	305	550	550	915	
Max. Die set size(mm)	W450×L390	W622×L432	W622×L432	W902×L483	
Mold height(mm)	228.6	228.6	254	254	
Mold opening stroke(mm)	120	135	145	160	
Oil pump driving motor(kw)	27	34	41   41	60	
Total connected load(kw)	39	49	57   61	86	
Average power consumption(kw)	26	33	38   40	57	
Compressed air at 10bar(m³/h)	20	34	38	55	
Mold cooling water: 10°C-5bar(m³/min)	1.9	2.6	2.8	3.8	
Oil cooling water: 15°C-5bar(m³/min)	3.2	4.2	4.4	5.7	
Total cooling requirment(kj/h)	170000	240000	260000	320000	
Machine size	Width(mm)	1520	1805	1805	2250
	Length(mm)	4050	4850	4850	5700
	Height(mm)	2350	2550	2550	2650
Machine Weight	6.4	9.5	12	16	

**■ Production possibilities**

	Dropper		Cylinder Round			Roll-on		Powder		Blake Jar		Oval Jar		Ovel		Widemouth		
	15 ml	30ml	120ml	250ml	500ml	50ml	100ml	100gr	400gr	100ml	200ml	70gr	175gr	200ml	500ml	100gr	500gr	
Material	LDPE	LDPE	HDPE	HDPE	HDPE	HDPE	HDPE	HDPE	HDPE	PP	HDPE	PP	PP	HDPE	HDPE	PP	PP	
Cycle	10±1	11±1	11±1	12±1	15±1	12±1	12±1	13±1	15±1	10±1	11±1	12±1	13±1	14±1	15±1	14±1	16±1	
Weight	4	6	12	22	32	11	16	12	34	14	22	11	21	24	40	18	47	
Cavitation	IBM40	8	8	4	3	2	6	4	6	4	3	4	3	2	2	2		
	IBM65	14	14	8	6	4	6	6	8	4	6	5	6	5	4	3	6	3
	IBM85	14	14	10	8	5	6	6	8	5	8	7	6	6	6	4	8	4
	IBM135			16	12	10		18	16	10	16	12	12	10	10	8	12	8

