



URE/Tac

UREATac CO., LTD.

—
MIXING HEAD
—

**HIGH PRESSURE
PU METERING MACHINE**
—

PU PLANTS

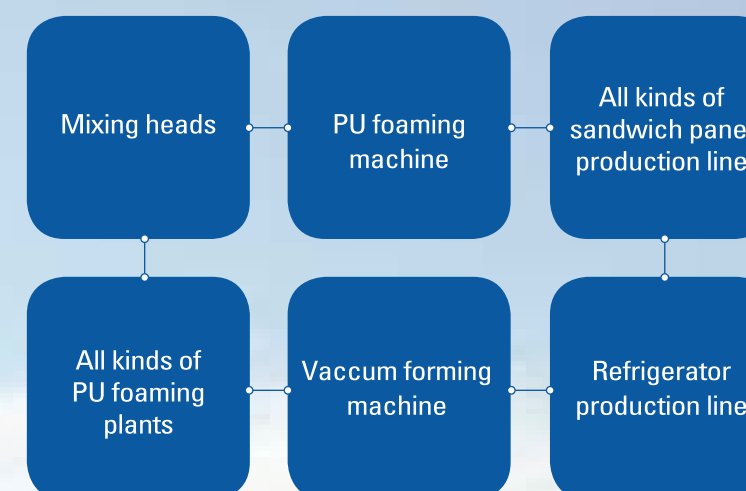


The Creation of Future-oriented Value!
**World Standard Competitive Company,
UREATac!**



UREATac

Total solution in of Polyurethane



UREATac Goes with Creativity and Passion for Client

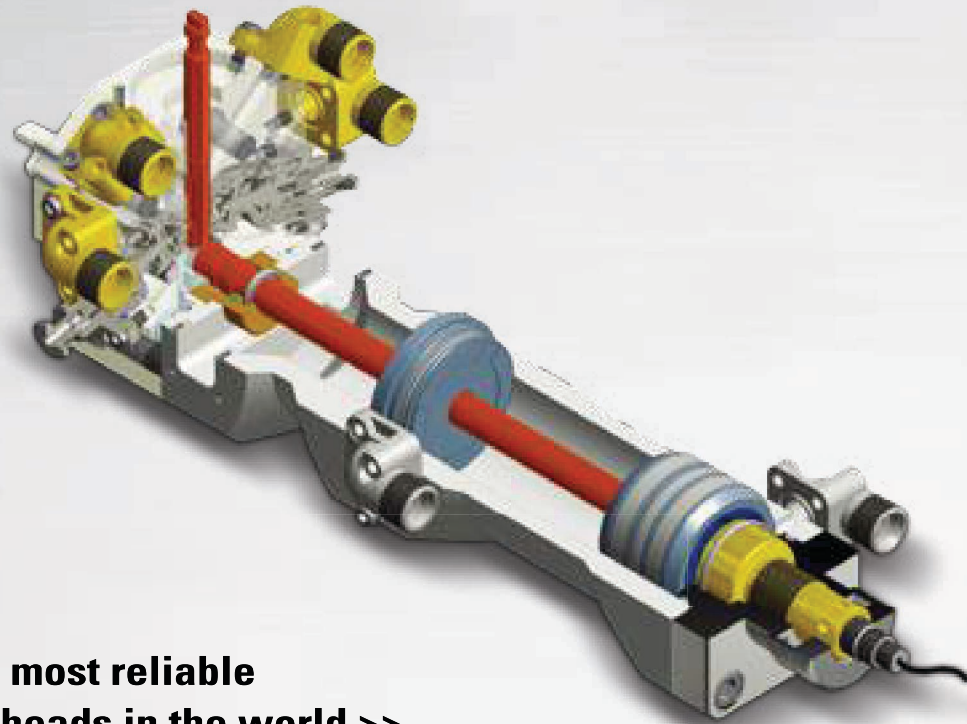
It is the most reliable
mixing heads in the world



UREATac
MIXING HEAD

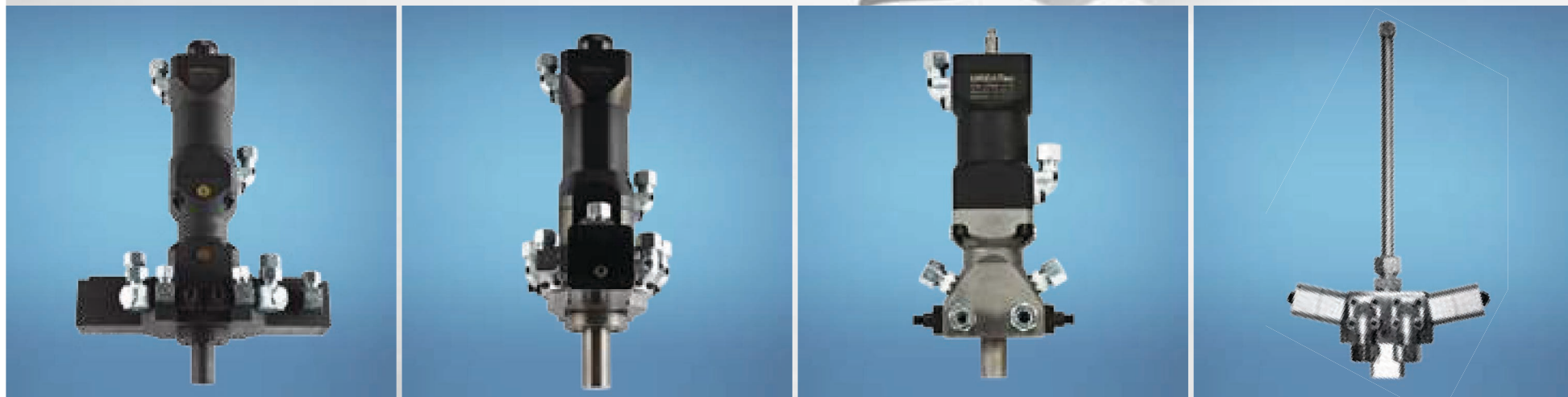
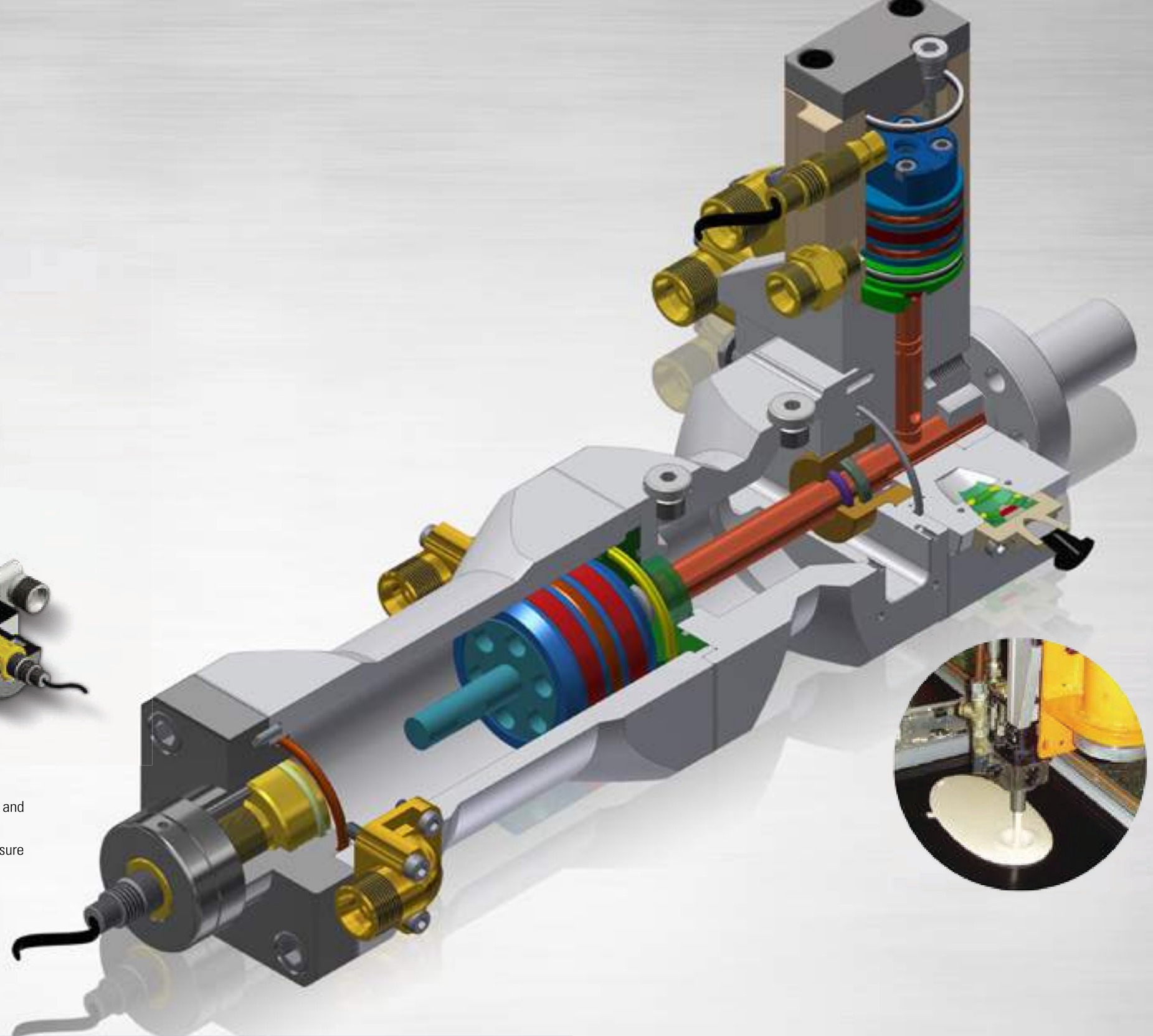
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UREATac's Mixing Heads



It is the most reliable mixing heads in the world >>

- UREATac has developed innovative mixing heads which all of customers are satisfied.
- UREATac has developed mixing heads of optimum process design to cover whole range of PU system.
- UREATac has developed mixing heads based on over 20 years experience in field of PU machines and plant engineering.
- UREATac mixing heads can be used without any trouble and any problems on all kinds of high pressure PU metering machines.
- UREATac make three kinds of mixing heads.
 - L type Mixing Heads
 - Straight type Mixing Heads
 - Mixing Heads for Continuous Panel
- UREATac's all mixing heads are available as multi components.(2-6 components)



UREATac Mixing head is the best solution for your production >>

- Easy, Friendly operating, Economical mixing heads
- The most reliable mixing heads
- Accuracy and right mixing heads
- Quality guaranteed & Innovative technology
- Man-man interface design
- Eco friendly design

L-TYPE Mixing Heads

> MXL Type, 2Comp (L-Type)



- UREATac's L-Type mixing heads are injected two components into mixing chamber of MC piston.
- The flows of mixed components into the outlet pipe that is offset by 90°.
- This L-Type mixing heads ensures a laminar flow, non splashing output and excellent mixing quality even with small output volumes into the open mould.
- After shot, the cleaning piston clean outlet pipe.
- UREATac's L-type mixing heads are increased mixing efficiency of up to 30% due to innovative nozzle system and mixing mechanism.
- There are available as 2,3,4,6 components.

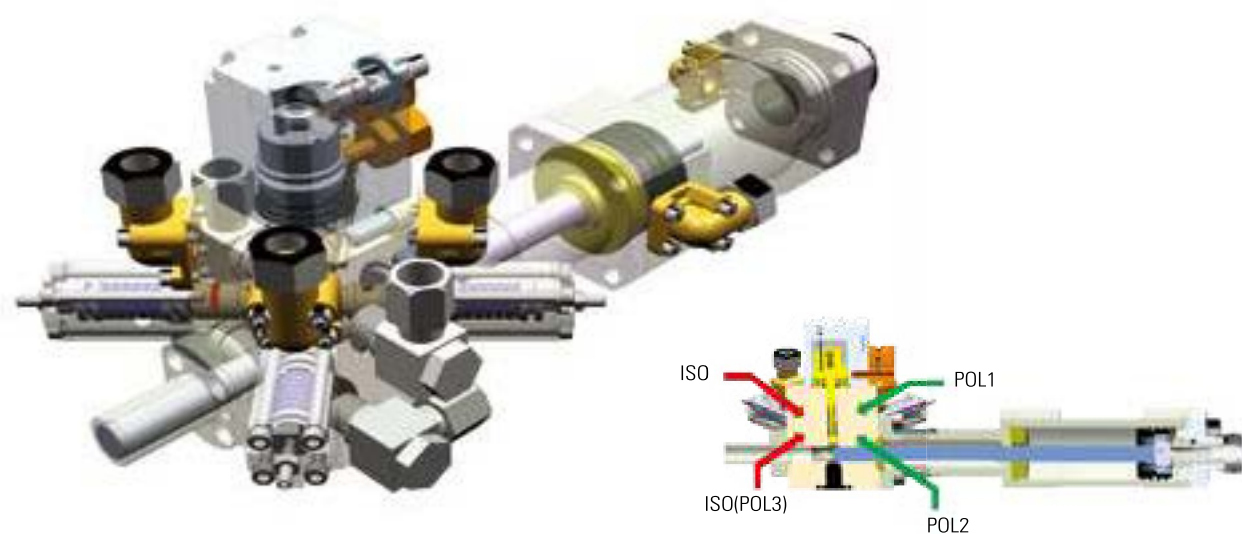
> MXL Type, 4Comp (L-Type)



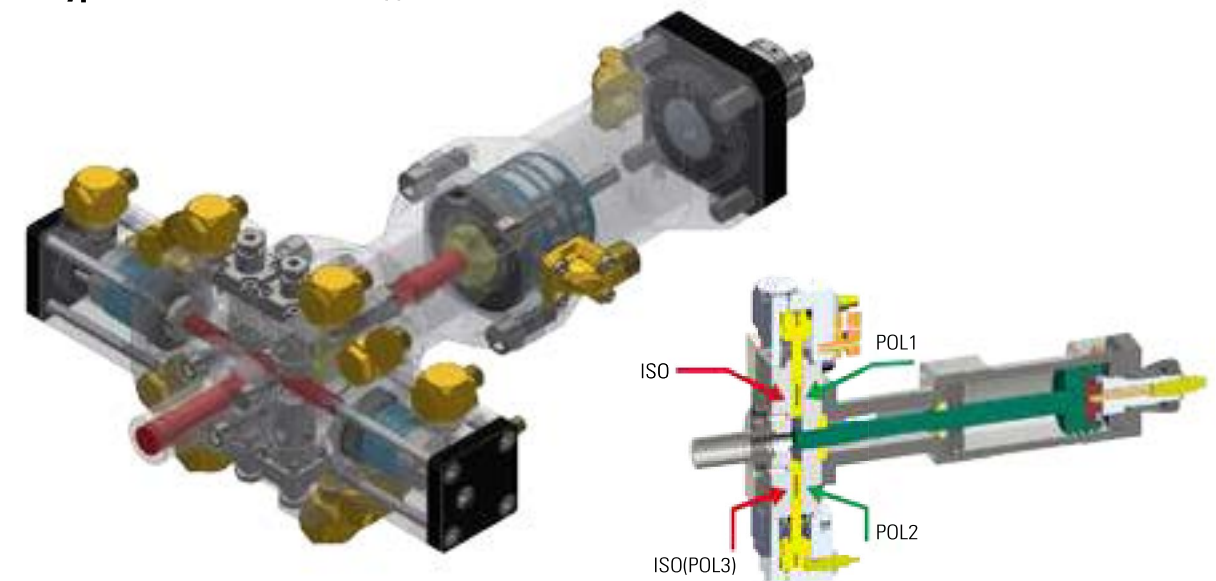
THE STRONG POINTS

1. High function, Economical & Reliable mixing heads
2. Perfect laminar flow and mixing quality
3. Low and Quick maintenance & zero defects
4. Eco friendly and self cleaning piston type
5. Easy operation & Simple Design
6. Min. shot time 0.3sec
7. Several million shots possible(Long life time)

MXL Type, 4CS (Single Head Type)

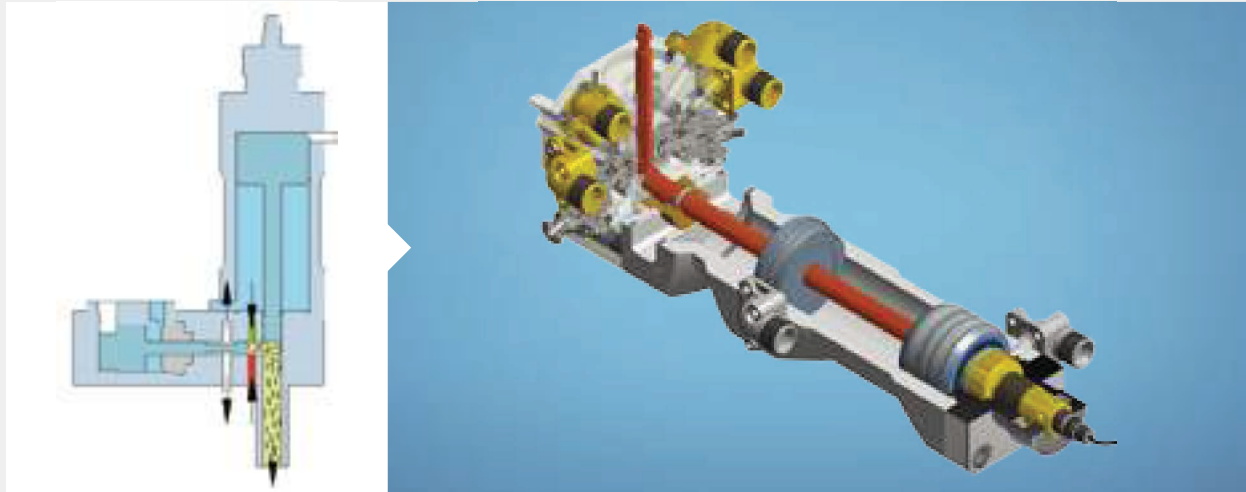


MXL Type, 4CD (Double Head Type)



L-TYPE Mixing Heads

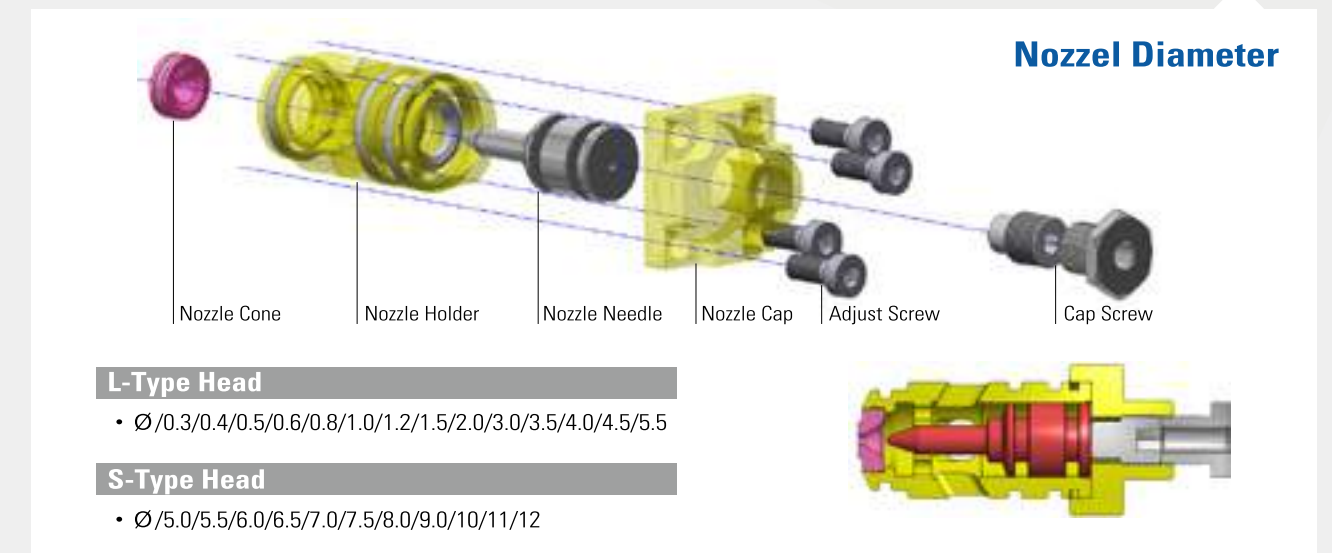
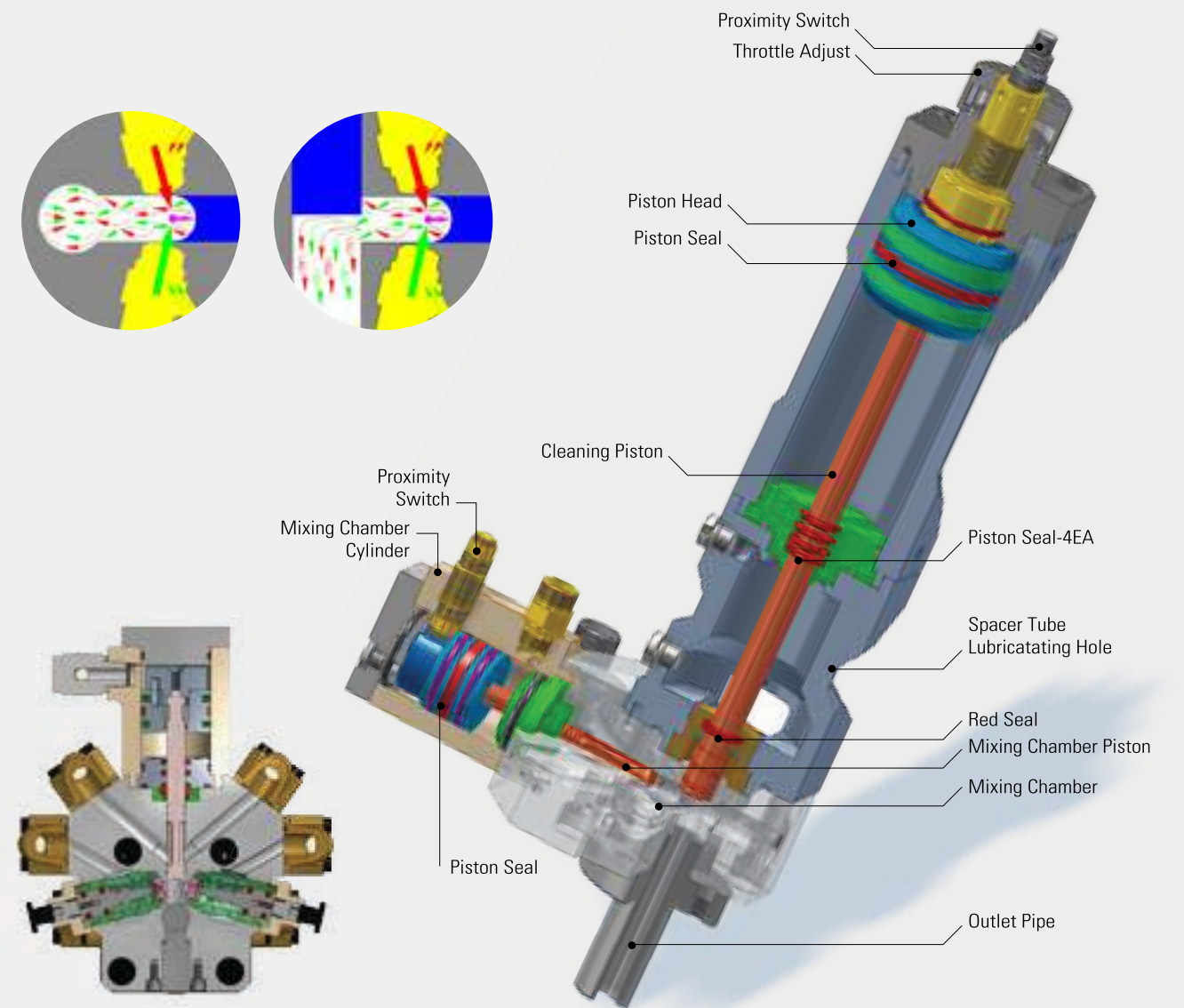
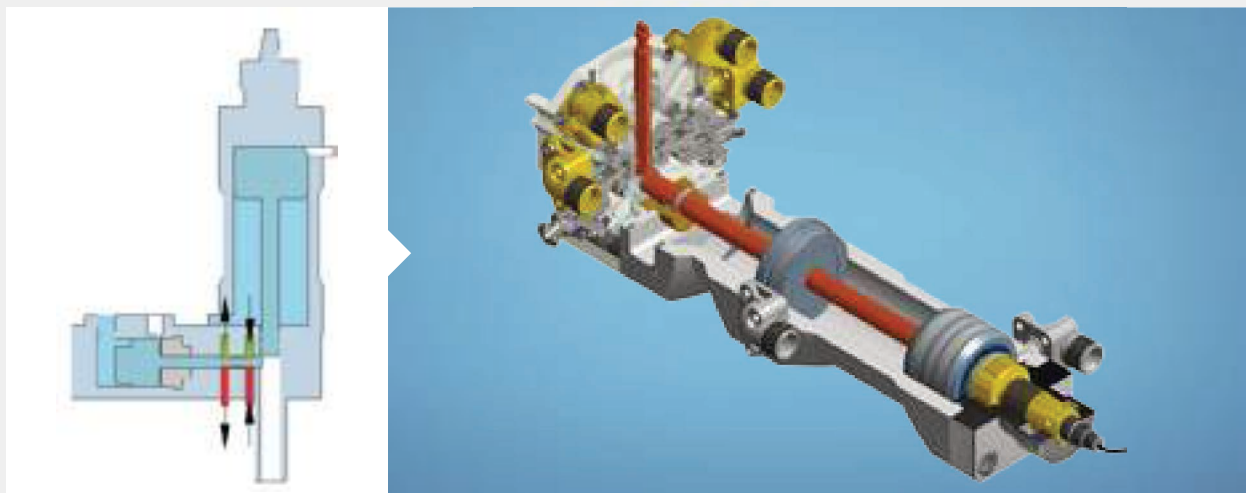
Injection



Cleaning



Circulation



Straight Type Mixing Heads

> MXS Type (Straight Type)

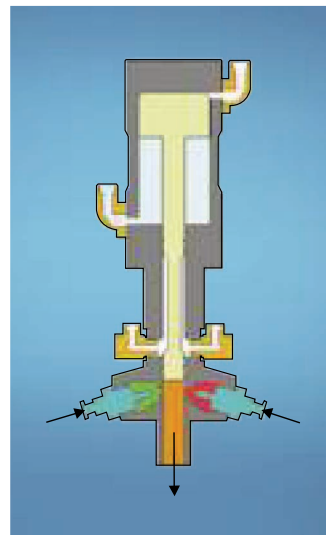
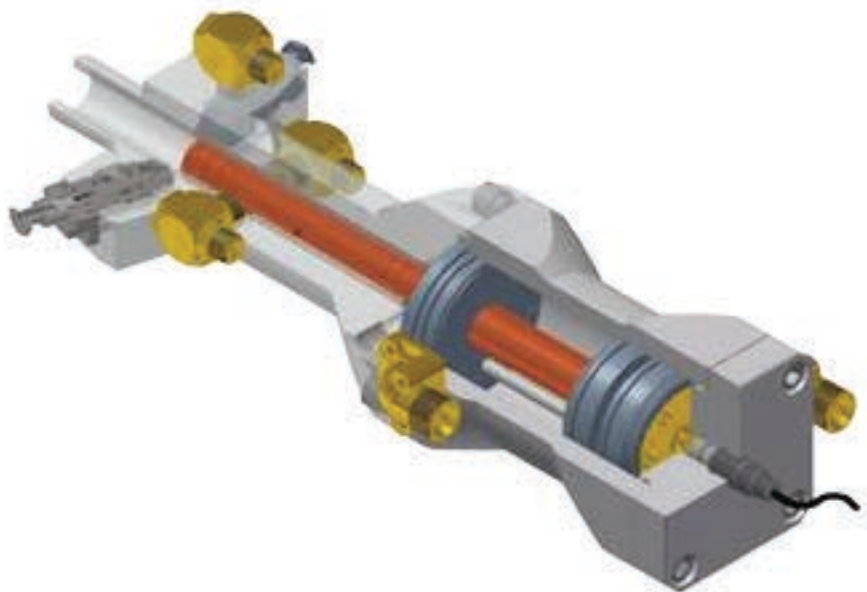
- UREATac's Straight mixing heads are mixed directly by powerful collision principle of two components at mixing chamber.
- Two Components by collision is mixed completely, reliable and intensively at mixing chamber
- There are available as 2, 3, 4 components.



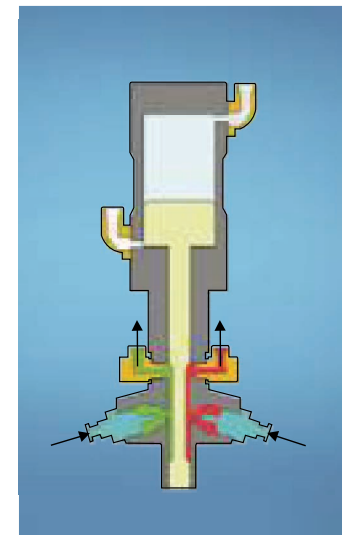
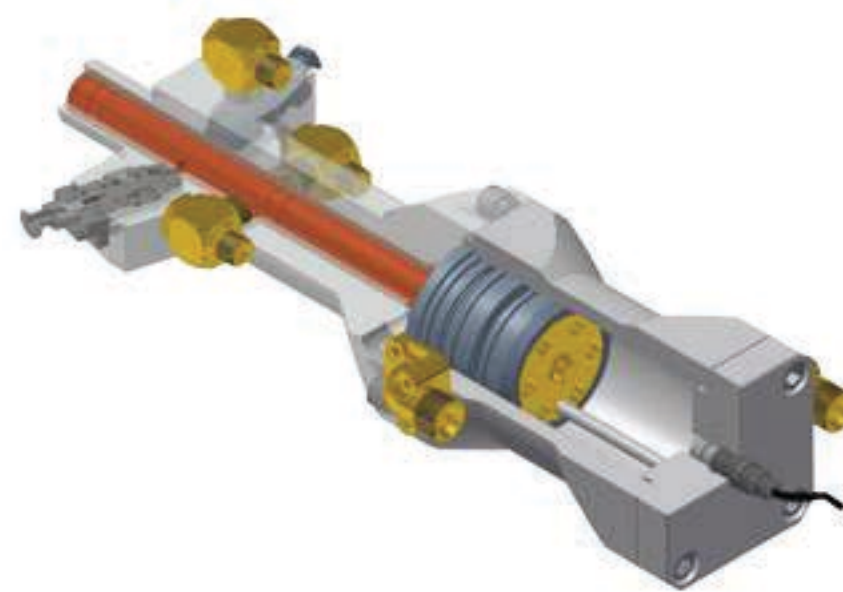
THE STRONG POINTS

1. Economical & Reliable mixing heads
2. Eco friendly and self cleaning piston type
3. The pressure setting can be controlled by nozzle needle
4. Min. shot time 0.3 sec
5. Several million shots possible

Injection



Circulation



UREATac's MIXING HEAD MAINTENANCE

- Quick and easy design
- Lubricating and cleaning are very easy to carry on
- Quickly and easily disassemble and assemble
- Quick delivery for all spare parts
- In case of repair and overhaul of mixing heads, quick handling at economical price
- In case of emergency in customer production, we prepare for spare mixing head for customer service quickly

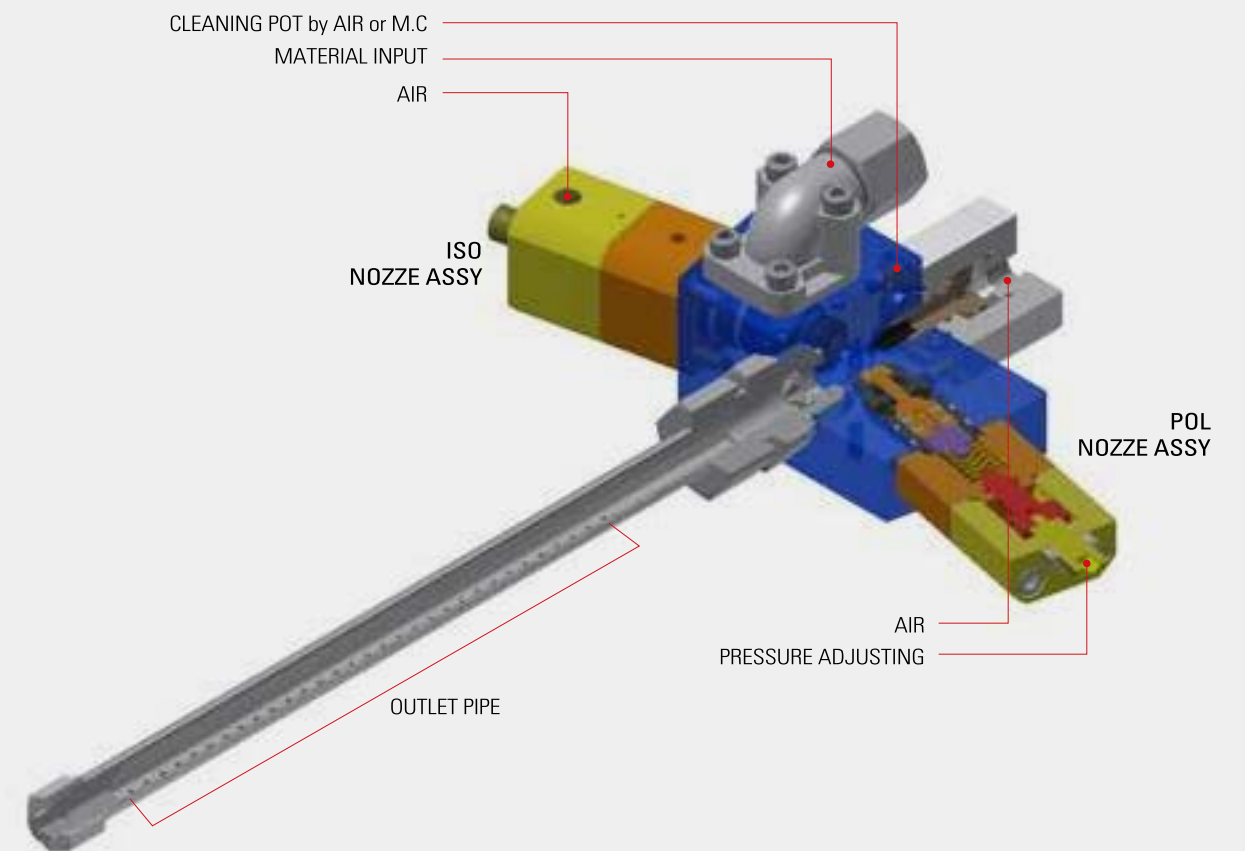
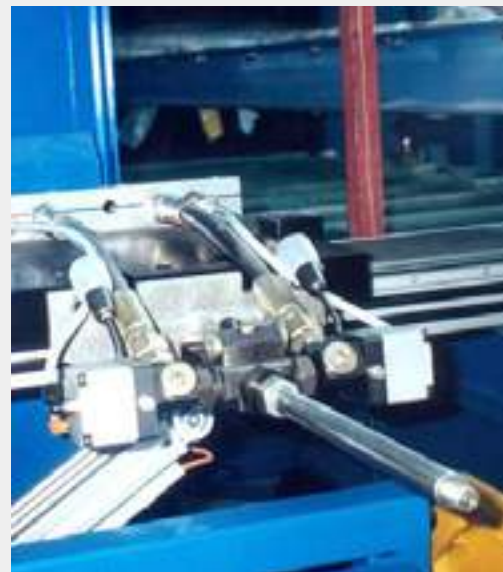
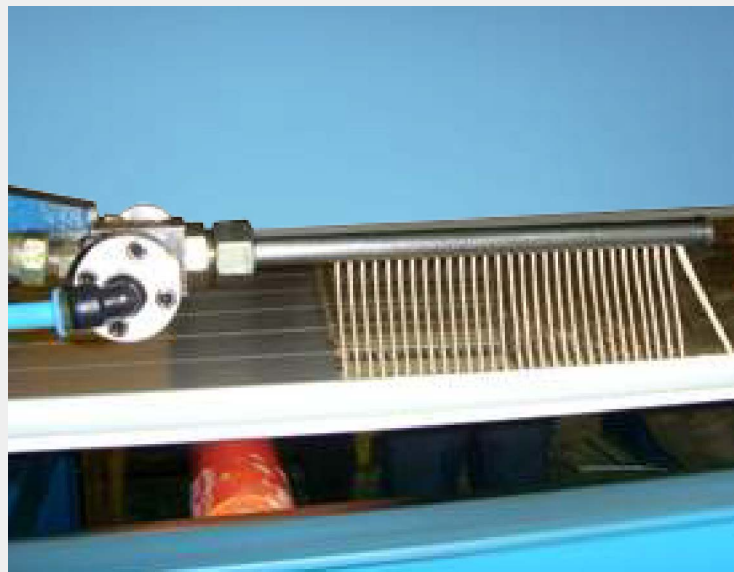
Mixing Heads for Continuous Panel

> MCP -10



THE STRONG POINTS

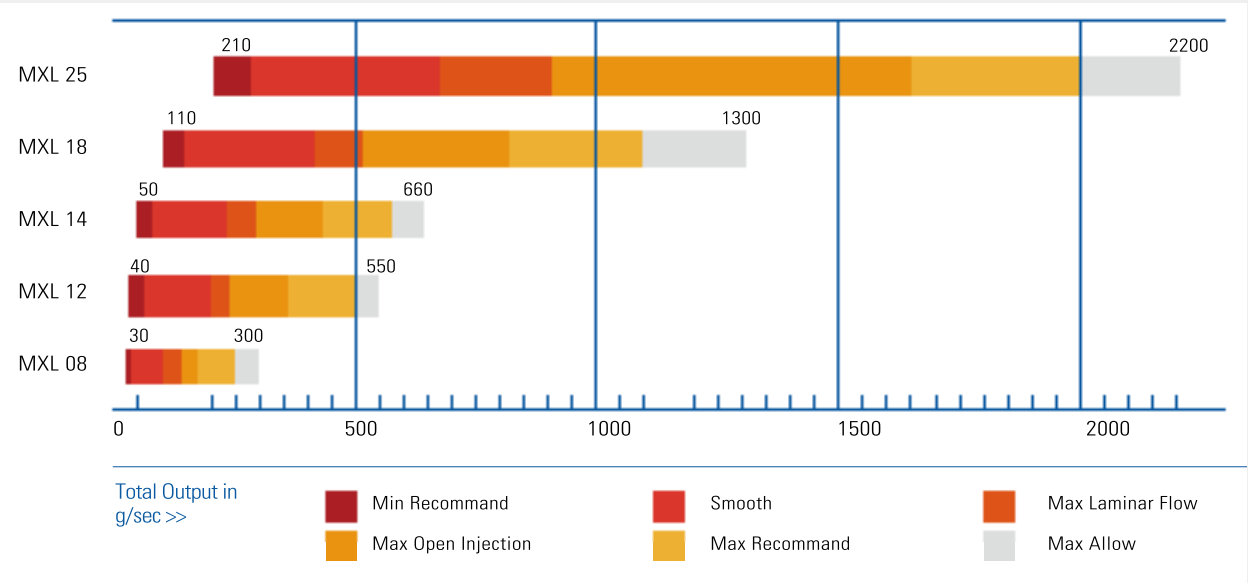
1. Economical & Reliable mixing heads
2. Eco friendly and easy cleaning type
3. Low and Quick maintenance & zero defects
4. Easy operation & Simple Design



Mixing Head Comparative Data

UREATac	Cannon	Hennecke	Krauss Maffei(KM)	EMB(Elastogram)
MXL Mixing Heads (L-Type)				
MXL 0507-2C		MT6, MX8	MK 5/8-2K	
MXL 0608-2C	FPL 10	MT8, MX8, MQ8	MK 5/8-2K	MKE 10-3B
MXL 0812-2C/3C		MT12, MX12, MQ12	MK 8/12-2K	
MXL 1014-2C	FPL 14			SMA 10-2/16, MKE 14-3B
MXL 1016-2C			MK 10/15-2K	SMA 14-4/22
MXL 1218-2C	FPL 18	MT18, MX18, MQ18	MK 12/18-2K	
MXL 1220-2C				MKE 20-3B
MXL 1220-4CD			MK 12-12/18-2K	
MXL 1220-4CS		MQ18-4C, MT18-4C	MK 14/20-4CN	
MXL 1422-2C				SMA 14-2/22
MXL 1422-4CD	FP2L 22			
MXL 1625-2C	FPL 24	MT26, MX25, MQ25	MK 16/25-2K	SMA 20-2/32, MKE 24-3B
MXL 18/22-6CS		MT22-6	MK 18/22-6CN	
MXS Mixing Heads (Straight Type)				
MXS 10-2C	LN 10		MK 10P-2KV	MKE 10-2K, MKE 10-3B
MXS 18-2C	LN 18		MK 16P-2KV	MKE 20-2K
MXS 25-2C	LN 25			MKE 28-2K, MKE 24-3B
MXS 30-2C				MKE 28-2K
MXS 36-4C				MKE 28-2K
MCP-10		MD		

MXL Mixing Head Flow Rates



Output Range by Mixing Head Models

Models	Mixing Ratio & Output (g/sec)			
	1:1	2:1	3:1	Laminar Flow Range at Open Mould
MXL Mixing Heads (L-Type)				
MXL 0608-2C	15~70	15~55	20~45	15~70
MXL 0610-2C	30~300	35~225	40~200	20~140
MXL 0812-2C/3C	40~550	45~410	50~370	40~220
MXL 1014-2C/3C	50~660	12~600	150~500	80~300
MXL 1218-2C/3C	110~1300	12~825	130~740	120~400
MXL 1220-2C/4C	130~1500	130~950	150~900	130~450
MXL 1422-2C/4C	180~1800	200~1500	300~1200	250~650
MXL 1625-2C	250~2200	270~1800	300~1600	400~800
MXS Mixing Heads (Straight type)				
MXS 10-2C	70~600	230~1000	230~900	
MXS 12-2C	150~1300	450~2300	500~2000	
MXS 18-2C	400~2500	1250~4500	1400~4000	
MXS 25-2C	1000~5000	1500~6000	1500~5000	
MXS 30-2C	1500~7000	3000~9000	3000~8000	
MXS 36-2C/4C	3000~10000			
MCP-10	70~800			

Mixing Head Models by Application

- Refrigerator Door : MXL 1014-2C or MXL 1218-2C
Cabinet : MXL 1422-2C or MXL 1625-2C
- Door Trim MXL 0812-2C
- Head Rest MXL 1014-2C
- Streering Wheel MXL 0812-3C
- Instrument Panel MXL 1218-2C
- Discontinuous Panel MXS 18 or 25, 30
- Car Seat MXL 1422-2C / 4CD
MXL 1422-2C / 4CD /4CS
- Pipe Insulation MXS 18 or 25, 30, 36

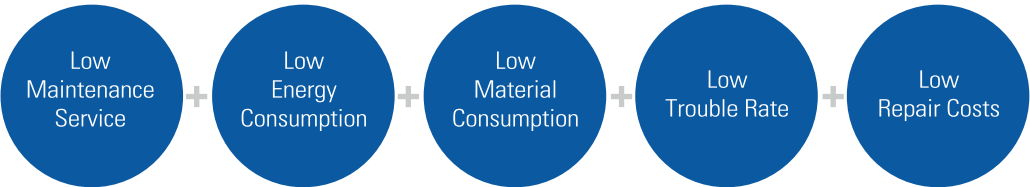
Types of Heads

- MXL : L-Type Head
- MXS : Straight Type Head

Components & Kinds of Heads

- 2C : 2comp
- 3C : 2comp + Color
- 4CD : 4comp (2+2 Double Heads)
- 4CS : Single 4 comp
- 6CS : Single 6 comp
- 2CF or 4CF : For Fillers (Special Made)

Customer advantage for UREATac mixing head





UREATac's High pressure
PU metering machine
are the best Solution for your production.

UREATac

HIGH PRESSURE PU METERING MACHINE

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High Pressure PU Metering Machines



UREATac's High pressure PU metering machine are the best Solution for your production.

UREATac's PU metering machine and mixing heads has the best solution for all kinds of PU products and high technology metering and mixing effect with high class metering pumps and mixing heads.

- UREATac has developed innovative mixing heads which all of customers are satisfied.
- UREATac has developed mixing heads of optimum process design to cover whole range of PU system.
- UREATac has developed mixing heads based on over 20 years experience in field of PU machines and plant engineering.
- UREATac mixing heads can be used without any trouble and any problems on all kinds of high pressure PU metering machines.
- UREATac make two kinds of mixing heads.
 - L-type Mixing Heads
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- UREATac's all mixing heads are available as multi components.(2~6 components)

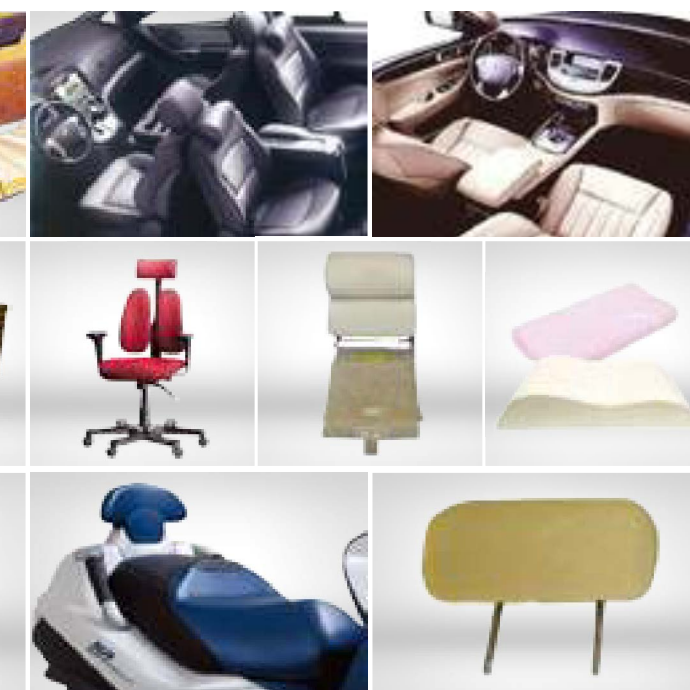
RIGID FOAM



- Rigid integral skin foam
- Density range: 180~1,100kg/m³
- A:B = approx 1:1

- Rigid foam
- Density range: 10~200kg/m³
- A:B = approx 1:1

FLEXIBLE FOAM



- Hot curing flexible foam
- Density range: 25~50kg/m³
- A:B = approx 2:1

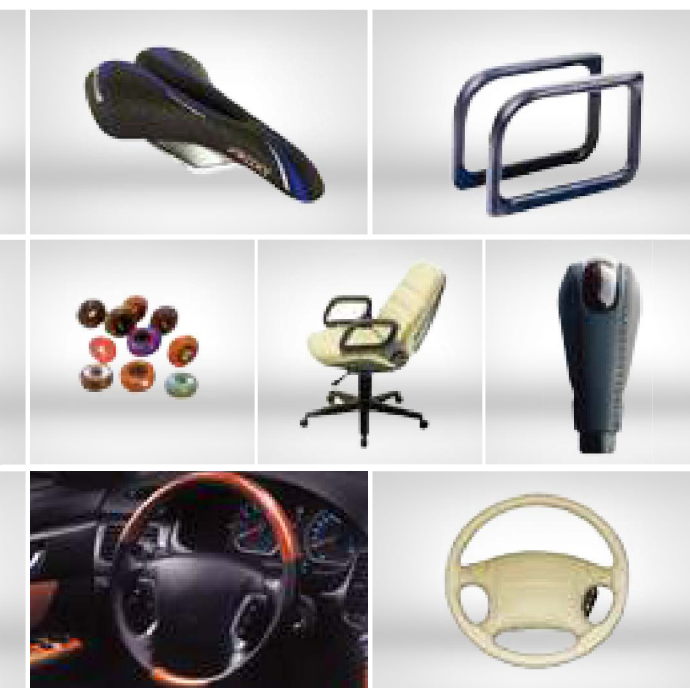
- Cold curing flexible foam
- Density range: 20~70kg/m³
- A:B = approx 2:1 or 3:1

SEMI RIGID FOAM



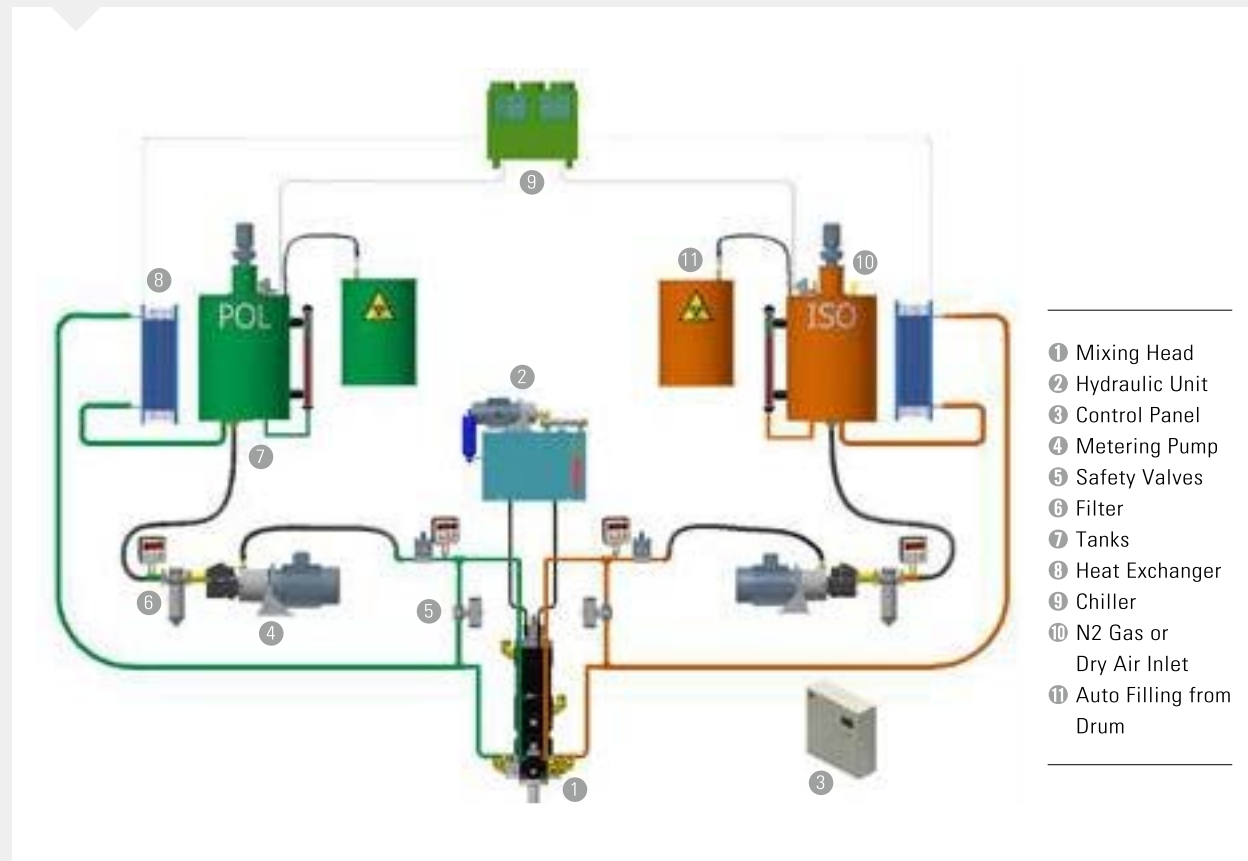
- Semi-rigid filling foam
- Density range: 100~300kg/m³
- A:B = approx 2:1

INTERGRAL SKIN FOAM

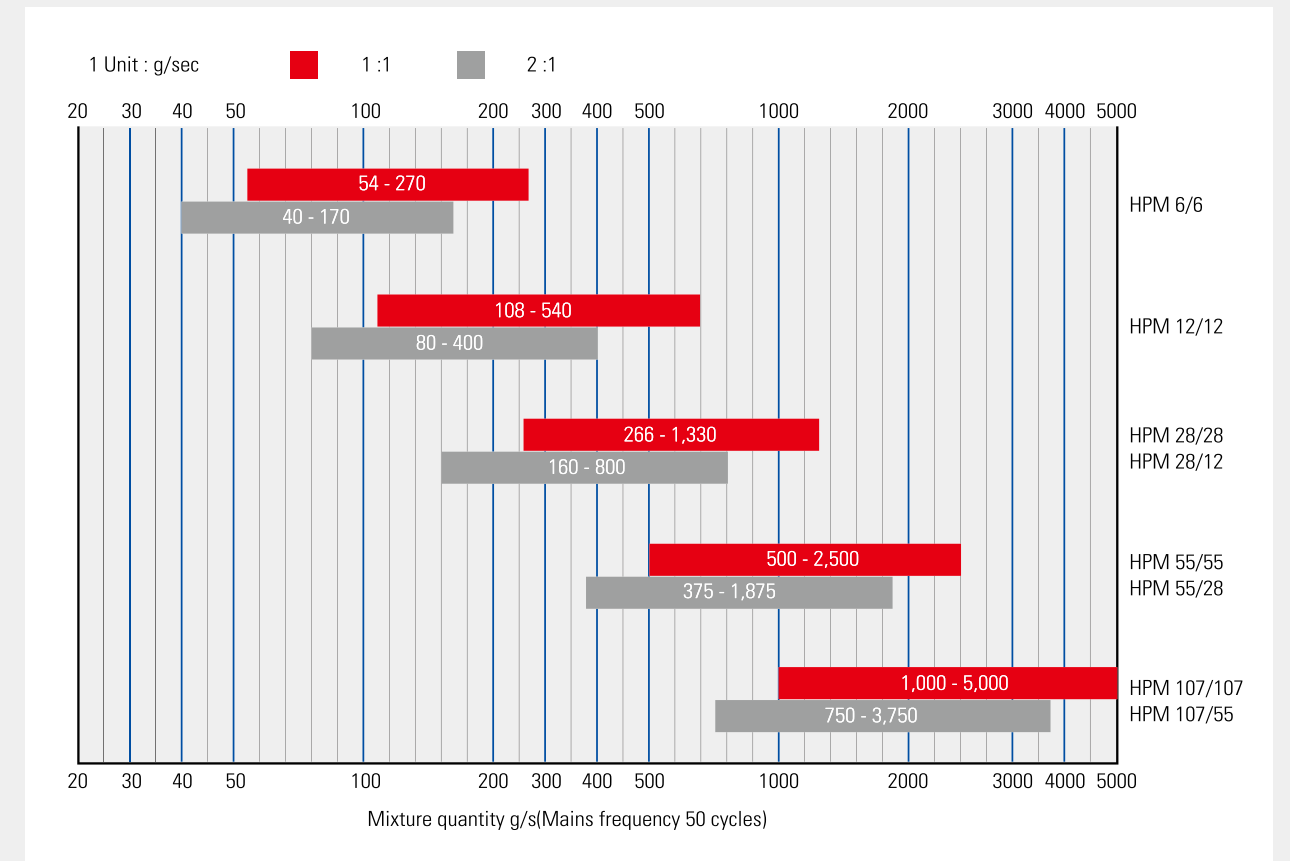


- Semi-rigid integral skin foam
- Density range: 150~1,100kg/m³
- A:B = approx 2:1 and 1:1

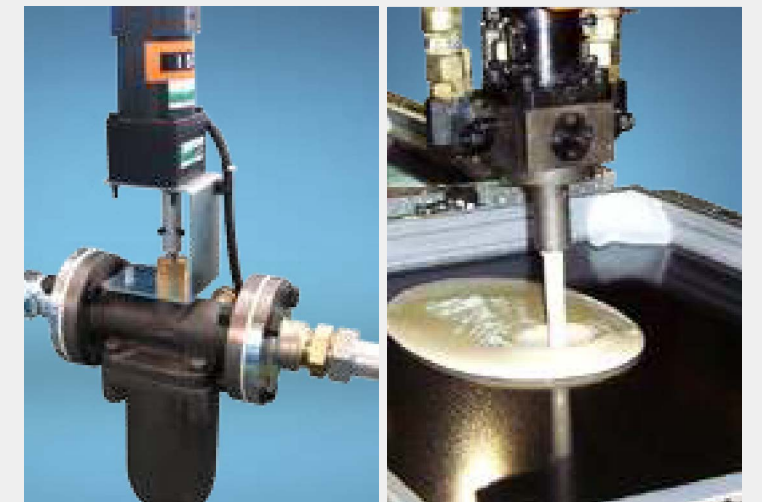
PU Metering Machines Adjustment Range



Control Panel

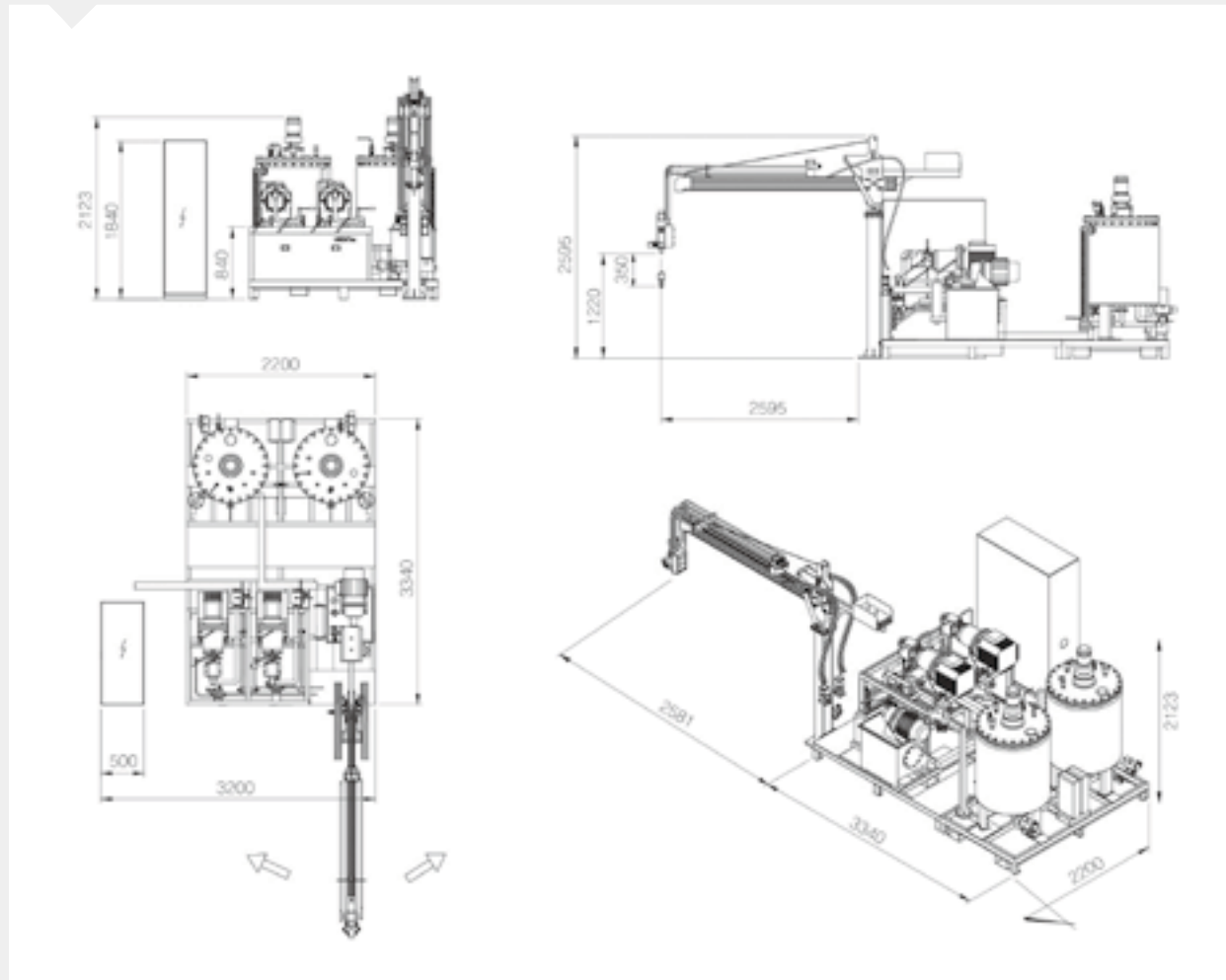


Metering Unit



Edge Filter

Layout Drawing



MACHINE COMPOSITION

- Type : Rigid 1:1 and Flexible 2:1 or 3:1
- Mixing head
- Machine Tank Size : 60, 250, 500, 1,000 liter with stirrer and Temperature control unit, Level gauge
- Electric Control Panel
- Metering pumps and Motors
- Edge filters
- Hydraulic unit
- Steel structure(table) for metering pumps and motors
- High & Low pressure gauge
- Safety Valve
- Low pressure circulation system
- Optional items
 - Flow meter
 - Magnetic coupling for polyol & Iso pumps
 - Chiller
 - Heat exchanger
 - Auto filling device from drum (Drum pump)
 - Insulation for machine tank
 - Inverter system
 - Boom with balancer
 - Upgrade for pentane process



Heat Exchanger & Machine Tanks



Metering Pump



Multi Component Metering Unit



Heat Exchanger

The New Strong
in Field of PU Industry!



UREKTac
PU PLANTS

PU Sandwich Panel Production Line	28
Flexible Facing Sandwich Panel Production Line	30
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PU Sandwich Panel Production Line

MANUFACTURING PROCESS

- | | | | |
|-----------------------|----------------|-----------------------|-----------------------------|
| 1 Uncoiler | 2 Roll forming | 3 Pre heating | 4 Foaming portal |
| 5 PU Metering machine | 6 PU Pouring | 7 Double conveyor | 8 Cross cutter |
| 9 Cooling conveyor | 10 Staker | 11 Bending & wrapping | 12 Mineral wool insert line |



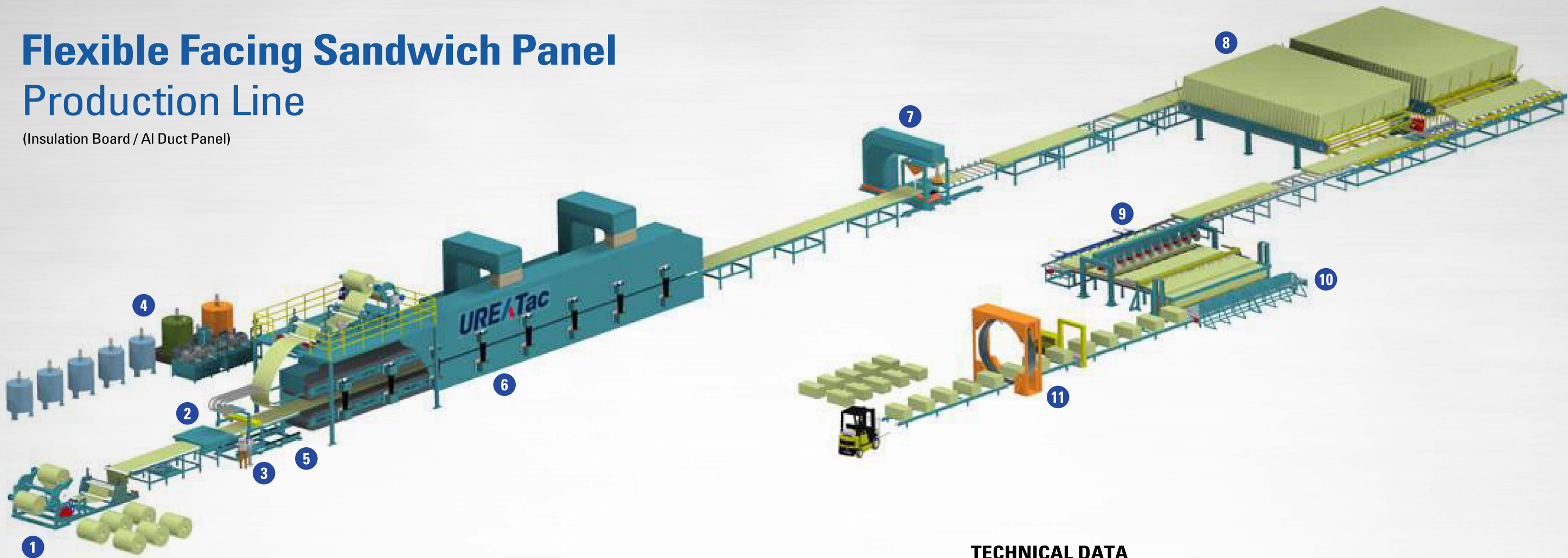
ADVANTAGE OF PUR SANDWICH PANEL

- Thermal insulation
- Fireproofing(PIR Foam)
- Water & Moisture-Proofing
- Sound insulation
- Rigidity
- Easy application
- Saving cost
- Various architectural style
- Beautiful appearance



Flexible Facing Sandwich Panel Production Line

(Insulation Board / Al Duct Panel)



MANUFACTURING PROCESS

- 1

Uncoiler
- 2

Pre heating
- 3

Foaming portal
- 4

PU Metering machine
- 5

PU Pouring
- 6

Double conveyor
- 7

Cross cutter
- 8

Cooling conveyor
- 9

2nd cutting
- 10

Staker
- 11

Bending & Wrapping



TECHNICAL DATA

Application	Duct panel or Insulation board
Facing material	Aluminum or paper, Fiber, Non woven fabric (Flexible material)
Production speed	5~40 m/Min
Working height	approx. 1.200mm
Panel width	1,200mm
Panel thickness	15~150mm pressure machine
Foam system	PUR or PIR Rigid foam
Foam density	Approx. 35~65 kg/m ²
Length of double conveyor	20~40m
Building Inner height	6m
Factory length	70~120m
Factory width	20~25m
Electric consumption	400 kw
Required man power	5men

Cold Room Panel Production Line(2+2 System)

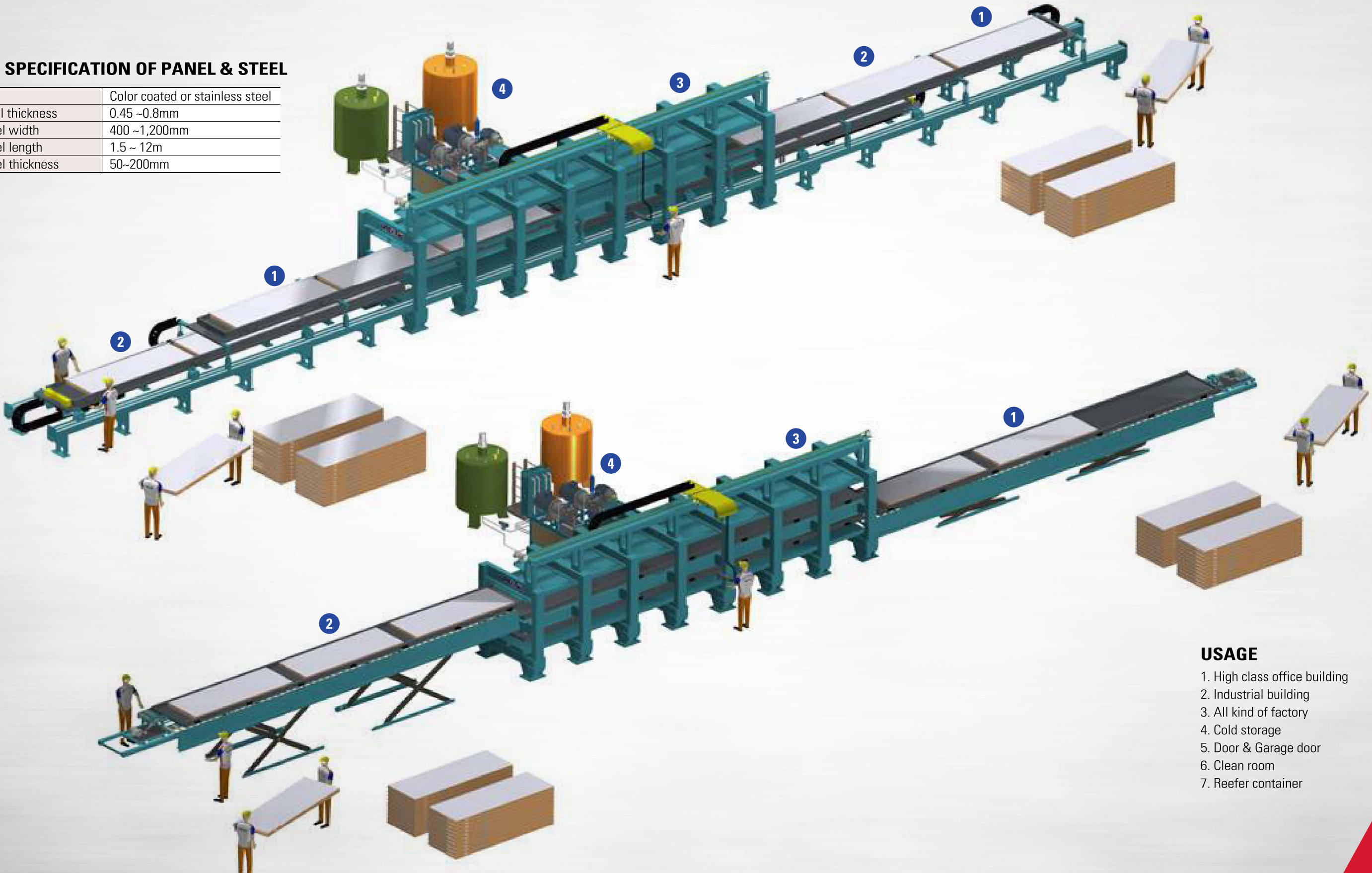
(PU Discontinuous Panel Production Line)

THE SPECIFICATION OF PANEL & STEEL

Coil	Color coated or stainless steel
Steel thickness	0.45 ~0.8mm
Panel width	400 ~1,200mm
Panel length	1.5 ~ 12m
Panel thickness	50~200mm

MANUFACTURING PROCESS

- 1 Upper platen
- 2 Lower platen
- 3 Pressing machine
- 4 PU Foaming machine



USAGE

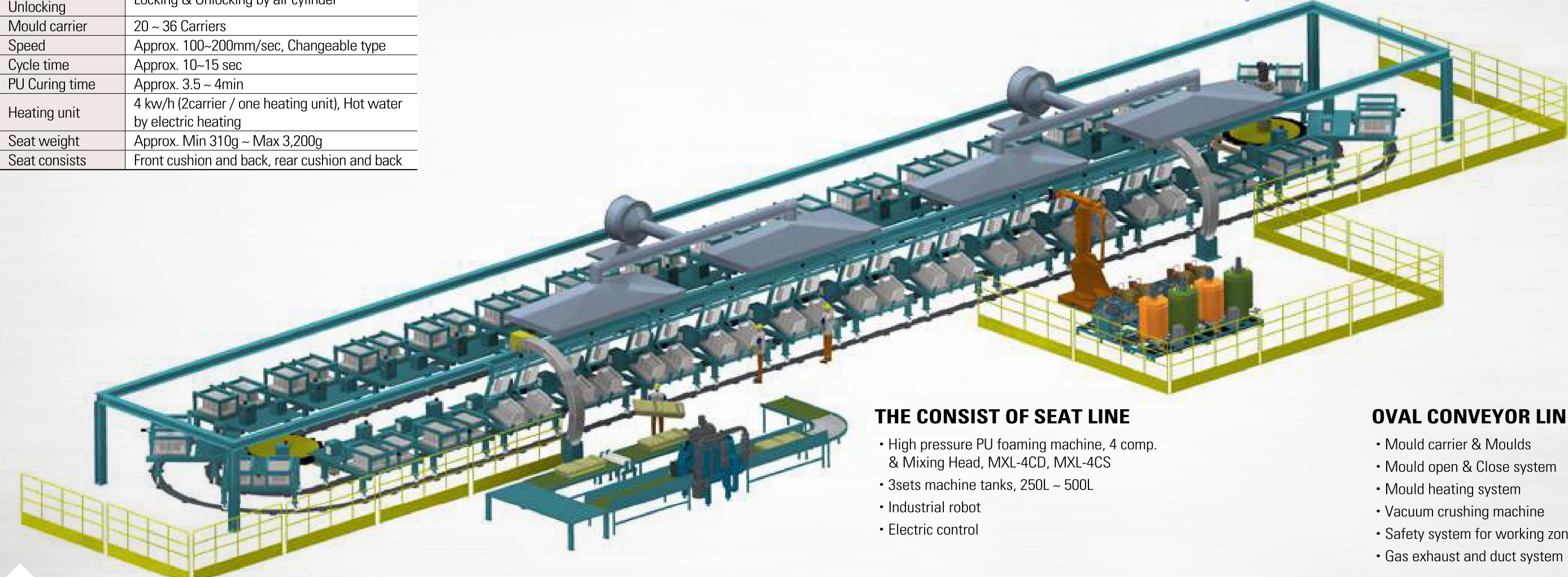
- 1. High class office building
- 2. Industrial building
- 3. All kind of factory
- 4. Cold storage
- 5. Door & Garage door
- 6. Clean room
- 7. Reefer container

Car Seat Production Line

(Oval Conveyor Type)

TECHNICAL DATA

PU Machine	High pressure machine 4 comp. Mixing head system
Production method	Continuous type
PU Injection	Automatic pouring into open mould
Mould carrier type	1) Hydraulic open and close 2) Mechanical unit open and close 3) Steel guide bar open and close
Mould locking / Unlocking	Locking & Unlocking by air cylinder
Mould carrier	20 ~ 36 Carriers
Speed	Approx. 100~200mm/sec, Changeable type
Cycle time	Approx. 10~15 sec
PU Curing time	Approx. 3.5 ~ 4min
Heating unit	4 kw/h (2carrier / one heating unit), Hot water by electric heating
Seat weight	Approx. Min 310g ~ Max 3,200g
Seat consists	Front cushion and back, rear cushion and back



THE CONSIST OF SEAT LINE

- High pressure PU foaming machine, 4 comp. & Mixing Head, MXL-4CD, MXL-4CS
- 3sets machine tanks, 250L ~ 500L
- Industrial robot
- Electric control

OVAL CONVEYOR LINE

- Mould carrier & Moulds
- Mould open & Close system
- Mould heating system
- Vacuum crushing machine
- Safety system for working zone
- Gas exhaust and duct system

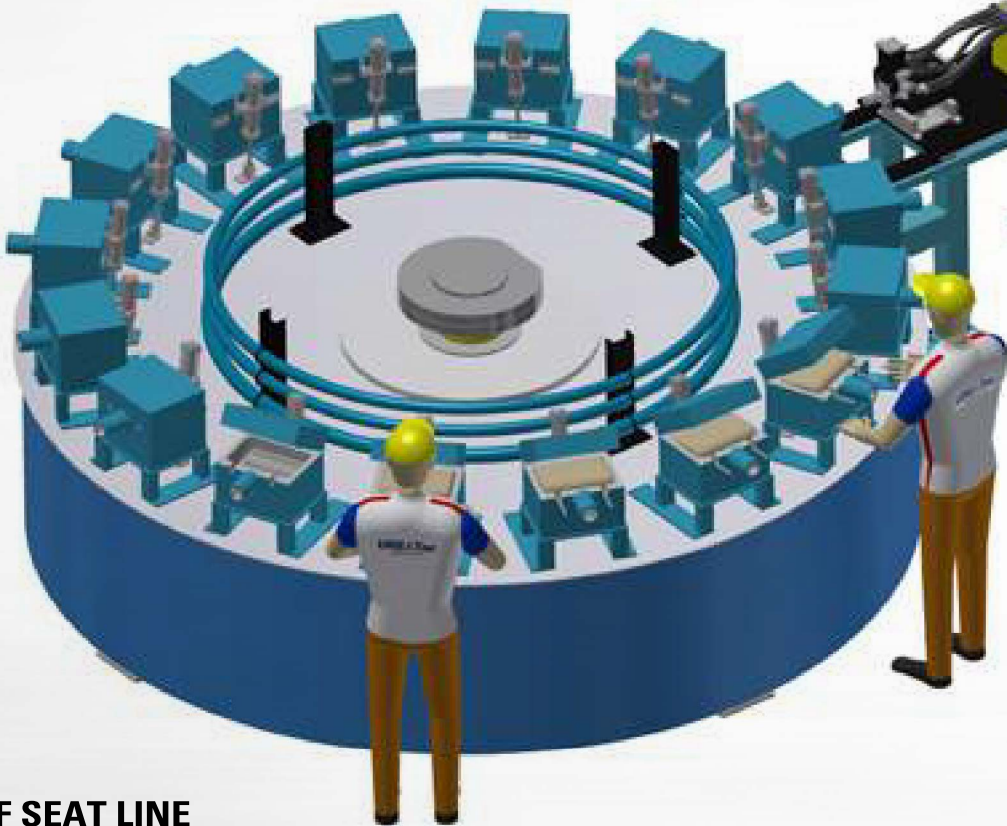


Foam in Conver Head Rest Line

(Turn Table Type)

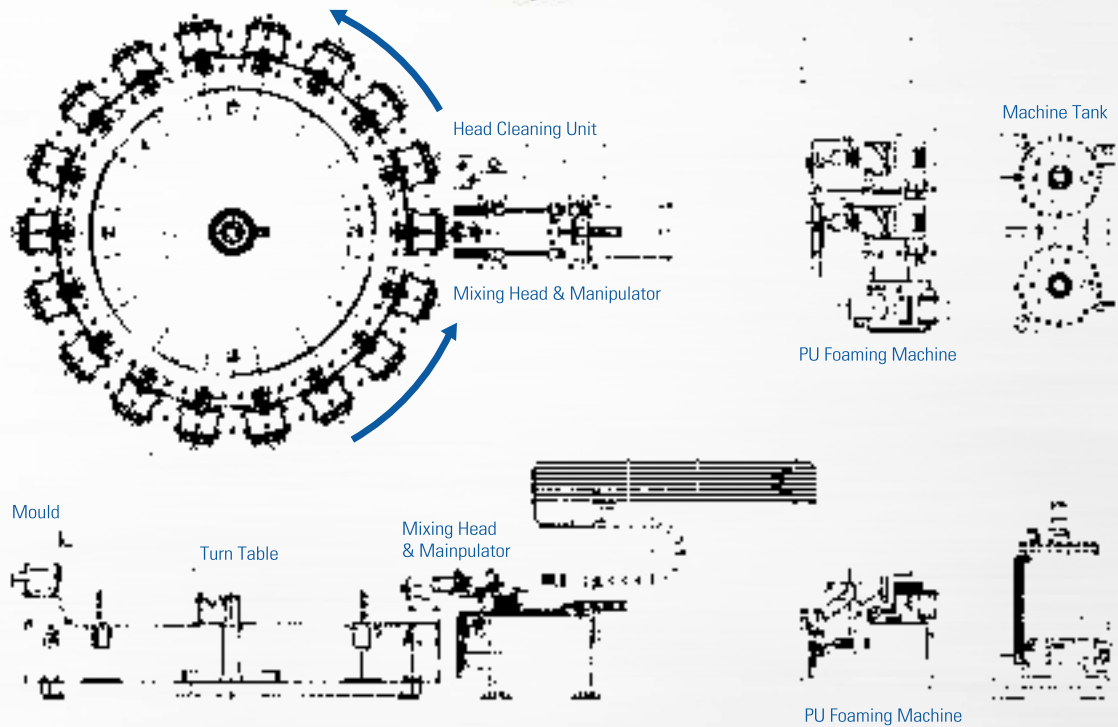
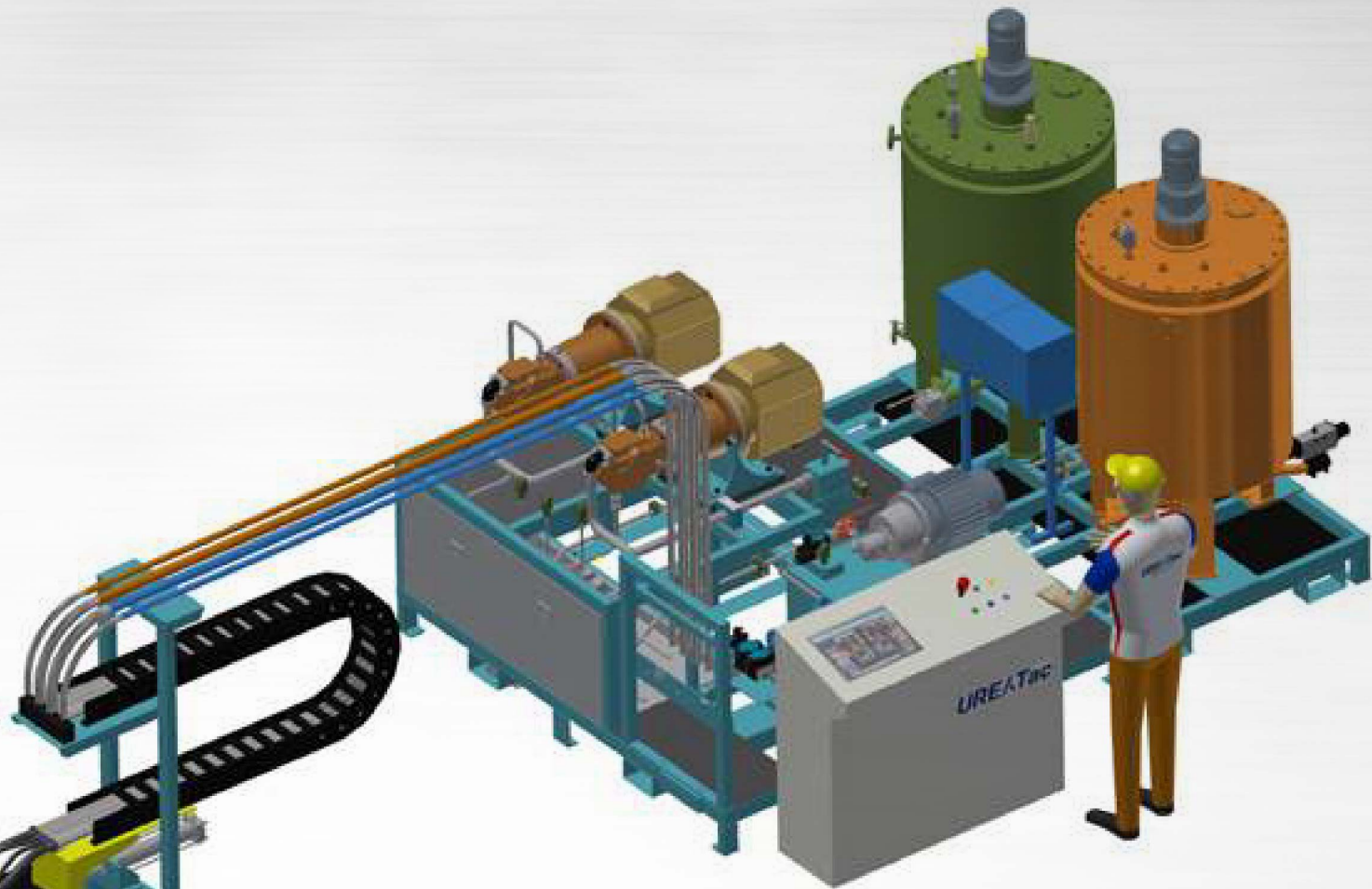
TECHNICAL DATA

PU Machine	High pressure machine, 2 comp. MXL Mixhead
Production method	Stop & go moving type
Product	Foam in cover head rest or general head rest
PU Injection	Automatic pouring into close mould by auto manipulator
Mould carrier type	Open and close by guide steel bar auto. Locking & unlocking by air unit
Mould carrier	10 ~ 16 Carriers
Turn table size	Approx. 4m(D) × 1.6m(H)
Mixhead cleaning unit	Hot water or DOP cleaning by brush
The shot cycle time	Approx. 60 sec
Mould heating	By electric water boiler
Head rest weight	Approx. Min 150g ~ Max 350g
The required worker	1~3 People
Yearly production capa.	1day - 8hr × 60min × 60sec ÷ 12sec = 2,400pcs
	1month - 2,400 × 26days = 62,400pcs
	1year - 624,000 × 12month = 748,800pcs

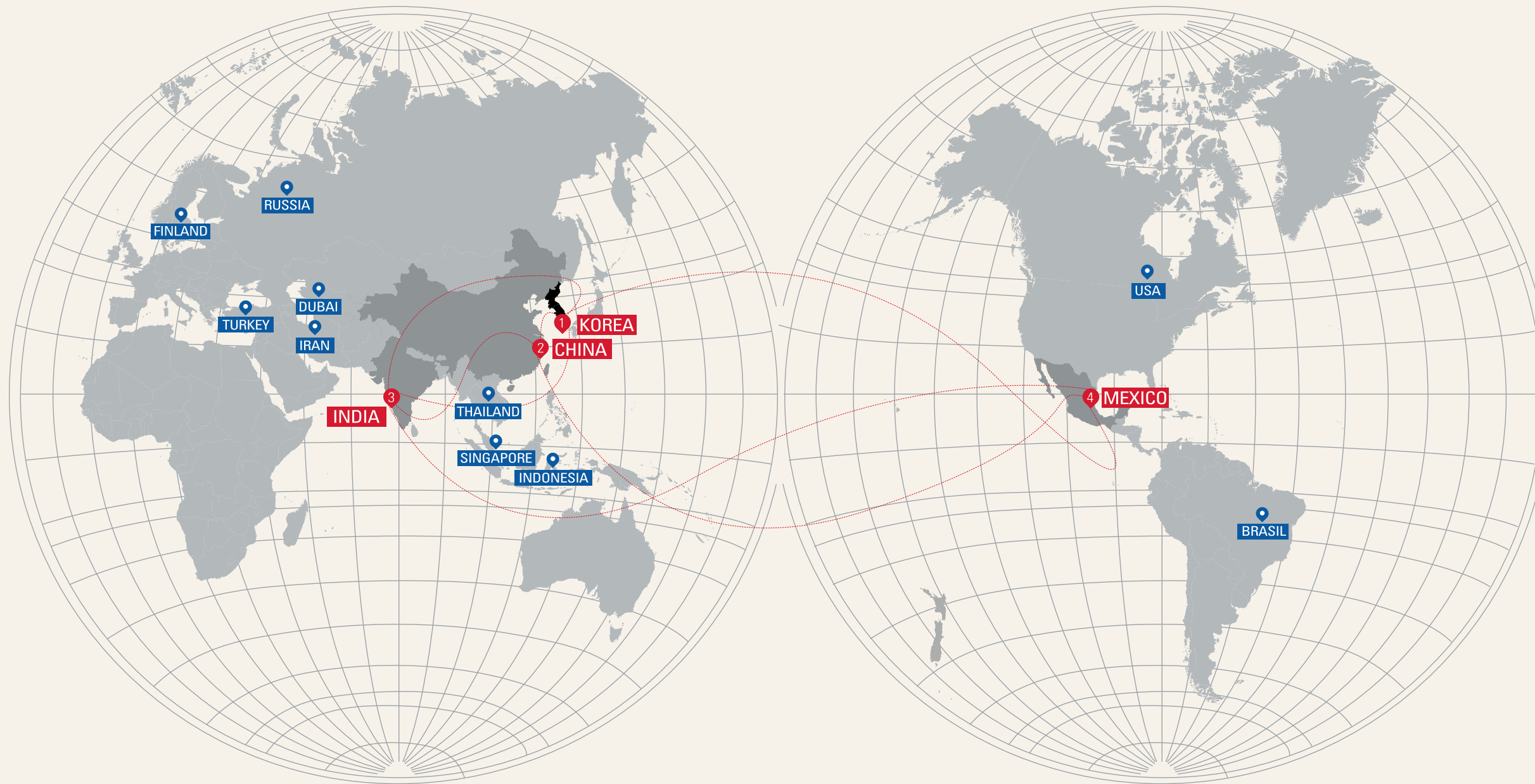


THE CONSIST OF SEAT LINE

- High pressure PU foaming machine, 2comp. & Mixing head MXL 1014-2C
- Turn table and moulds
- Auto manipulator with mixing head cleaning unit
- Mould open & close by steel guide bar
- Electric cintrol
- Boiler



The Global UREATac!



Major Customers



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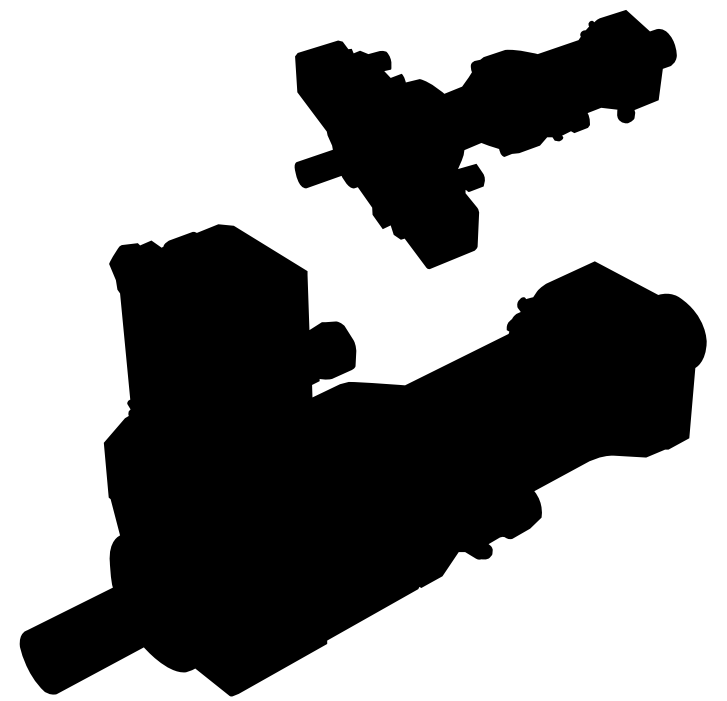
UREATac MEXICO

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