

ULTIMATE HIGH PRESSURE MIXING HEAD

# HIGH PRESSURE MIXING HEAD







DUT KOREA is specialist of PU machine and offers high pressure mixing head, metering pump, foaming machine and all kinds of PU solutions.

#### **DUT KOREA**

DUT has established in 1992 and became a leading company as manufacturer & specialist in field of High Pressure PU Solutions including Foaming Machine, Mixing Head, Metering Pump and all kinds of PU Applications in Korea. DUT started PU business with high quality of Mixing Head which is core of PU technology then the business expanded to all kinds of PU applications. DUT's market share of this field is getting bigger rapidly.

### **Solution for Polyurethane**

DUT's slogan is "Solution for Polyurethane". It means we do not just sell the product but care of products until customer's satisfaction. Our technology of polyurethane is started from customer's need and finished by their satisfaction.

### **Huge Sales Network**

Sales Department has huge international network over 57 countries including USA, Germany, Italy, UK, Poland, Hungary, Egypt, China, Mexico, Japan, India, Iran, Thailand, New Zealand, and Brazil so customers are able to contact easily in their region.







### DUT KOREA introduces premium Mixing Head.

Our Mixing Head is focused on operator's convenience and high level of working efficiency.

### **Efficiency**

DUT's mixing head has developed via advantages of previous L-type mixing head and it has patented as "Double Tilted Injection System" The system called "Double Tilted Injection System" is combined with precise nozzle then it makes best condition of laminar flow.

### **Compatibility**

DUT has over 50 models of mixing head so customer can choose their applicable models.

### **Cost efficiency**

From DUT's premium mixing head, customers are able to get maximum competitiveness by minimum investment and simplified design of mixing head helps you to reduce cost for maintenance and repair.

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# **INTRODUCTION OF MIXING HEAD**

Mixing Head is a core part of foaming machine. It decides quality of end products and affects to efficiency of raw materials. DUT's mixing head has improved from advantages of L-type mixing head, and it has patented as "Double Tilted Injection System"

Long range of model helps you to choose your fitted applicable mixing head.

Double Tilted Nozzle and Reared Chamber Injection - DTRC L-Type - DHVA Series R-Type - DHS Series



**DTRC SERIES** 



**DHV SERIES** 



**DTVA SERIES** 



**DHS SERIES** 

# 2K,3K,4K AND 4KSH TYPE

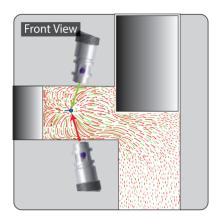
- · 2K 2Components Mixing Head with 2nozzles(POL/ISO)
- · 3K 3Components Mixing Head with 2nozzles and a pigment nozzle. (POL/ISO/Pigment)
- · 4K 4Components Dual Mixing Head with 4nozzles(POL/ISO)
- · 4KSH 4Components SH Mixing Head with 4 nozzles(POL/ISO)

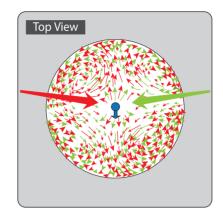
# **DTRC SERIES**

### **FEATURES**

- Maximum efficiency by "Double Tilted Rear Chamber Mixing System"
- Ability to obtain the best mixing efficiency with lower pressure than other OEM's mixing systems
- High compatibility with various type of foaming machine
- Innovative nozzle control for minimum switching times for use with multi-component
- Anti-stick locking design(X-groove technology has applied to cleaning piston) & Anti-scrap floating design.
- Long life cycle & low maintenance costs
- Repeatable Stroke adjustments (for L-Style Mix Heads) from one mix head to the next
- The enhancement of the initial kinetic energy, which is caused by 1st and 2nd collisions
- The kinetic energy and laminar flow are further enhanced by the reversing effect in the extended mixing chamber
- With high viscosity materials, the DTRC maximizes the mixing efficiency by offsetting the process of kinetic energy
- The DTRC provides the softest laminar flow available with the best mixed Polyurethane

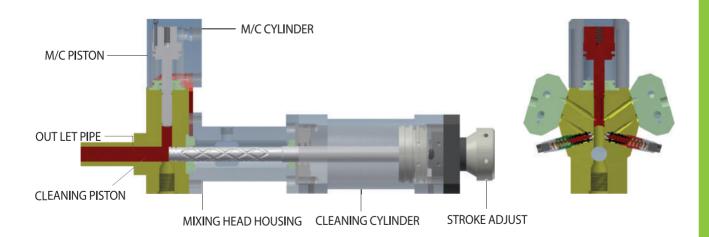






#### **Double Tilted Rear Chamber**

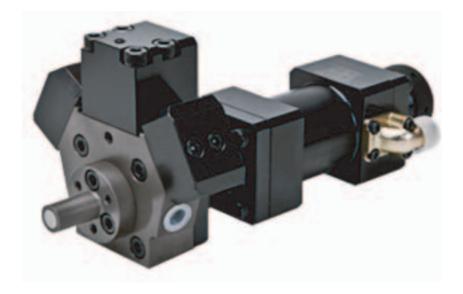
DUT's Double Tilted Rear Changer Mixing Head System(DTRC) is designed to make maximum mixing efficiency while still maintaining adesireable laminar flow. The DTRC Mix Heads areengineered to provide morechemical stream collisions (Impingement)inside the mix head's mixing chamber via double tilted nozzle angle. Moreover, the additional space provided in the mixing chamber for mixing is then able to provide the customers with the best mixing efficiency with lower pressure than previous L-type systems that are currently available by other OEM's.



# **DHV SERIES**

DHV Series has designed for customers who need ultimate quality of end products and it has PCT patent (Double Tilted Injection System)

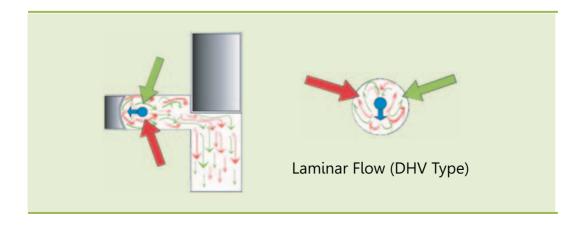
DHVM Series is special type for length of outlet pipe and it is applied to close mold.



### **FEATURES**

Injected raw materials(POL/ISO) by double tilted angle make optimal laminar flow in housing.

- High quality of end products are produced by dense cell structure
- Easy maintenance and repair by simple design
- Anti-Locking system for cleaning piston has applied.
- Stable compatibility with various type of PU industries
- High quality of end products with lower pressure
- Helps to make longer life time for metering pump
- Maximum of 300,000 shots with an year warranty



# **SPECIFICATION**

#### **DHV - 2K Series** (POL/ISO)

Double tilted injection type mixing head for all kinds of rigid, flexible and integral foams.



Mixing Ratio	(	Open Mold(g/s)		
Model	1:1	1:2	1:3	Open Mola(g/s)
DHV 0507-2K	30~190	45~180	45~165	30~80
DHV 0507-2K-72L	30~190	45~180	45~165	30~80
DHV 0812-2K	40~420	50~320	70~280	50~180
DHV 1014-2K	50~450	60~380	80~340	60~250
DHV 1218-2K	130~1100	140~900	150~750	120~500
DHV 1422-2K	280~2000	250~1800	240~1500	230~550
DHV 1625-2K	370~3500	380~2300	600~2100	400~900

#### DHV - 3K Series (POL/ISO/PIGMENT)

Double tilted injection type mixing head for all kinds of rigid, flexible and integral foams.



Mixing Ratio	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5			Open Mold(g/s)
Model	1:1	1:2	1:3	Open Mold(g/s)
DHV 0812-3K	40~420	50~320	70~280	50~180
DHV 1014-3K	50~450	60~380	80~340	60~250
DHV 1218-3K	130~1100	140~900	150~750	120~500

#### **DHV - 4K Series** (Dual Head)

Double L- type Mixing head for automotive seat line



Mixing Ratio		Open Mold(g/s)		
Model	1:1	1:2	1:3	Open Mold(g/s)
DHV 1422-4K	280~2400	200~1100	220~1000	250~600
DHV 1625-4K	320~3800	430~2300	450~1800	400~800

# **DHVM - 2K Series** (2K Mixing Head with changeable outlet pipe)

2K Mixing Head with changeable outlet pipe to inject deep in mould



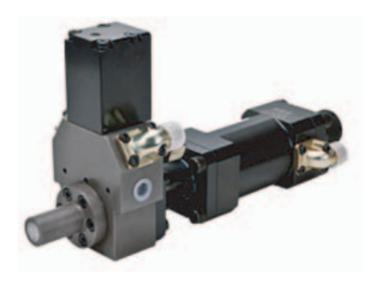
Mixing Ratio	С	Open Meld(a/a)		
Model	1:1	1:2	1:3	Open Mold(g/s)
DHV 0507-2K	30~190	45~180	45~165	30~80
DHV 0812-2K	40~420	50~320	70~280	50~180
DHV 1014-2K	50~450	60~380	80~340	60~250
DHV 1218-2K	130~1100	140~900	150~750	120~500
DHV 1422-2K	280~2000	250~1800	240~1500	230~550
DHV 1625-2K	370~3500	380~2300	600~2100	400~900

# **DHVA SERIES**

DHVA Series is L-type mixing head and offers high efficiency with economical price. It consists of 4 types as 2K, 3K, 4K and 4KSH.

4K and 4KSH type mixing heads are designed to produce 2 and more different type of foams by one mixing head.

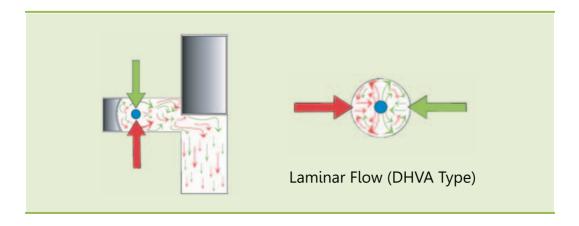
Also "Tungsten Carbide" process has applied to 2KF and 4KSHF to minimize abrasion inside of mixing head.



## **FEATURES**

DHVA makes optimal mixing efficiency by simple structure and economical price gives customer's high competitiveness in their field.

- High mixing efficiency with economical price
- Easy maintenance and repair by simple design
- Various type of foams can be produced by one mixing head (4KSH)
- Anti-Locking system for cleaning piston has applied.
- Stable compatibility with various type of PU industries.
- Maximum of 300,000 shots with an year warranty



# **SPECIFICATION**

#### **DHVA-2K SERIES**

L- type mixing head for all kinds of rigid, flexible and integral foams.



Mixing Ratio	C	lose Mold(g/s		Open Mold(g/s)
Model	1:1	1:2	1:3	Open Mold(g/s)
DHVA 0507-2K	30~190	45~180	45~165	30~80
DHVA 1220-2K	130~1000	130~700	150~600	130~500

### **DHVA - 4K Series** (Dual Head)

Double L- type 4K Mixing head



Mixing Ratio	C	Open Mold(g/s)		
Model	1:1	1:2	1:3	opon mora(g/o/
DHVA 0814-4K	80~700	60~320	70~280	50~250
DHVA 1016-4K	110~800	80~450	80~350	80~300
DHVA 1220-4K	130~1000	250~1000	250~700	150~500

### **DHVA - 4KSH Series** (SH Type)

Various type of foams can be manufactured



Mixing Rat	io CI	ose Mold(g/s)	_	Open
Model	1:1	1:2	1:3	Mold(g/s)
DHVA 1220-4KSH	130~1100	130~950	150~700	130~550

#### **DHVA-2KF**

"Tungsten Carbide" process has applied



Mixing Ratio	(	Close Mold(g/	Open Mold(g/s)	
Model	1:1	1:2	1:3	Open mora(g/s)
DHVA 1220-2KF	130~1000	130~700	150~600	130~500

#### **DHVA-4KSHF**

"Tungsten Carbide" process has applied



Mixing Ratio		Close Mold(	Open Mold(g/s)	
Model	1:1	1:2	1:3	<b>σροι: ιποια(9/ο</b> /
DHVA 1014-4KSHF	100~720	80~840	120~600	80~350

# **DHS SERIES**

DHS Series called R-type mixing head in common and it is applyed to inject big volume of output.

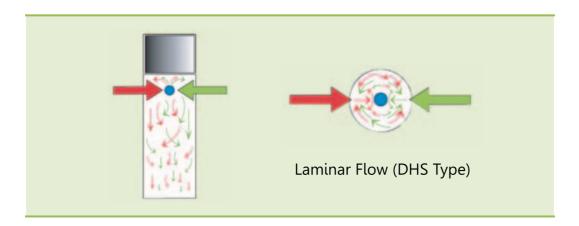
DHS NA type is special type for PU sandwich panel line.



## **FEATURES**

DHS has straight structure for injection and simply designed system makes optimal mixing efficiency furthermore, economical price gives customer's high competitiveness in their field.

- High mixing efficiency with economical price
- Injection for big volume of output and long distance
- Easy maintenance and repair by simple design
- Quick operating
- Wide injection range
- Stable compatibility with various type of PU industries
- Maximum of 300,000 shots with an year warranty



# **SPECIFICATION**

### **DHS - 2K** (R-Type Mixing Head)

R-Type mixing head to inject big volume of output



Mixing Ratio		Close Mold(g/s)			
Model	1:1	1:2	1:3	Open Mold(g/s)	
DHS 12R-2K	150~1300	230~1000	250~900	150~80	
DHS 16R-2K	400~2000	250~1300	270~1300	-	
DHS 18R-2K	400~2500	450~2300	500~2000	-	
DHS 25R-2K	1000~5000	1250~4500	1400~4100	-	
DHS 30R-2K	1000~8000	1250~4500	1400~4100	-	
DHS 36R-2K	3000~10000	3050~10200	3500~9000	-	

### **DHS - 3K** (R-Type 3K Mixing Head)

R-Type mixing head to inject big volume of output



Mixing Ratio		Close Mold(g/s)		Open Mold(g/s)
Model	1:1	1:2	1:3	Open Mola(g/s)
DHS 16R-3K	400~2000	250~1300	270~1300	-

## **DHS - 4K** (R-Type 4K Mixing Head)

R-Type mixing head to inject big volume of output



Mixing Ratio	Close Mold(g/s)	Open Mold(g/s)
Model	1:1	open mola(g/s)
DHS 36R-4K	3000~10000	-

#### **DHS-08VN**

For PU sandwich panel continuous production line.



Mixing Ratio Model	Close Mold(g/s)			Open Mold(g/s)
	1:1	1:2	1:3	open mora(g/s/
DHS-08VN	-	-	-	30~300

# **GLOBAL NETWORK**











# **GLOBAL NETWORK**













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#### R&D

DUT's R&D Team consists of PU specialists. They are always consider to solve customer's dificulties and DUT's innovative technology is created from customer's requirement. DUT's R&D center is totally set by customers.

#### Q/A

To offer reliable products, Q/A team has been working to control product's quality. The technical data and troubleshootings are stored in DUT's Q/A database, and it helps to produce DUT's better products.

#### **PRODUCTION**

The Production team has organized by skilled engineers and they manufacture DUT's innovative products by reliable equipments.

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