



*Profession Comes From Focus*

**DIE ENGINEERING CORPORATION**

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〒939-8216

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Toyama city Toyama Prefecture

TEL : 076-420-9531

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**[D.I.E VACUUM SYSTEM TRADING  
(SHANGHAI)CO.,LTD]**

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**[DIE ENGINEERING  
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168/61 Baan Chayada@Work, Buanakarin Rd,

Tambon Bang Kaeo, Amphoe Bang Phli ,

Chang Wat Samut Prakan 10540

TEL : +66 (0) 84-916-7342



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**DIE ENGINEERING CORPORATION**





# For your satisfied smile

Our company contributes to recycling society through design, development, manufacture and sale of vacuum units of vacuum die cast which is the basis of manufacturing industry.

## Corporation principle

As a recognized corporation, we contribute to society by meeting the need of society positively and providing high performance product.

## Management policy

Aim at being a corporation to be loved by this society  
Providing products which contribute to this society and  
Cherishing our business partner

## Vacuum valve

Various model which can apply to die lock force from 50ton to 2250ton die cast machine.

## Vacuum chill vent

Various model (two used) which can apply to die lock force from 125ton to 500ton die cast machine.

## Vacuum device

This vacuum device can draw out the function of vacuum valve and chill vent completely.



# System for Vacuum die cast

The molten metal is filled into cavity at high speed and high pressure, then the adiabatic compression causes defective products.

Our vacuum system can reduce the defective percentage effectively.



## Development

Jul.2000	DIE limited company established. Vacuum valve of vacuum die casting on sale by Mr. Morikawa
Jan.2002	Vacuum device of vacuum die casting on sale
Nov.2002	Ueda sale and technical center established
Sept.2005	Name of company changed into DIE ENGINEERING CORPORATION
Dec.2005	Three years plan started
	High quality vacuum system for aluminum die casting development
	Clamping force 2500KN cold chamber die casting machine introduction
	New cooling machine , New injection , New vacuum die casting development
Sept.2007	ISO9001 ・ISO14001 certification acquisition
Apr.2008	Mold cooling device development ・sale
jan.2010	Shanghai branch company established
Apr.2012	Vacuum chill vent on sale
Oct.2014	President Ka Sei inauguration
Jul.2016	Thailand branch company established
Oct.2016	Customers 290 Exporting country 13
	Main export country : China, Korea, Vietnam, Philippines, Thailand, Malaysia, Indonesia, India, Spain, America, Mexico, Brazil, Australia
June.2018	Head office integrated from Toyama City to Ueda Nagano Prefecture

## Branch company



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775-11 Motohara Sanada street  
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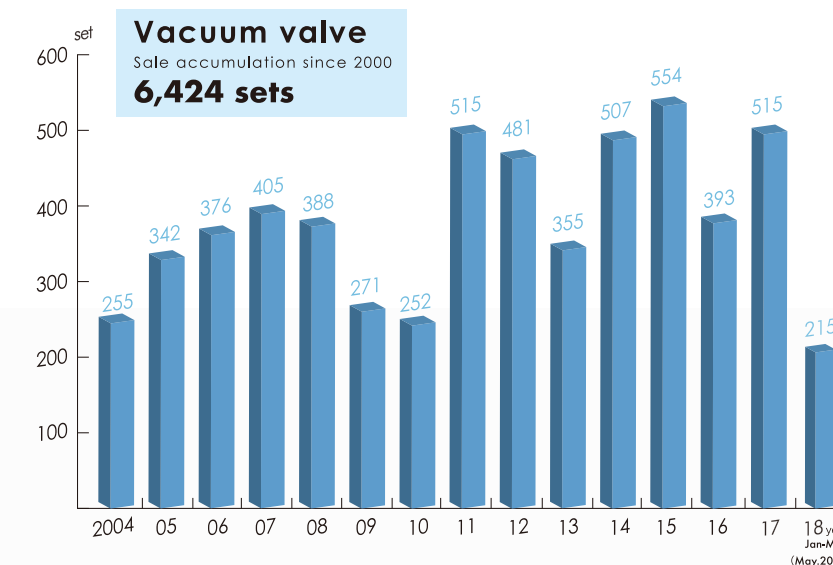


### 【DIE ENGINEERING (THAILAND) CO., LTD.】

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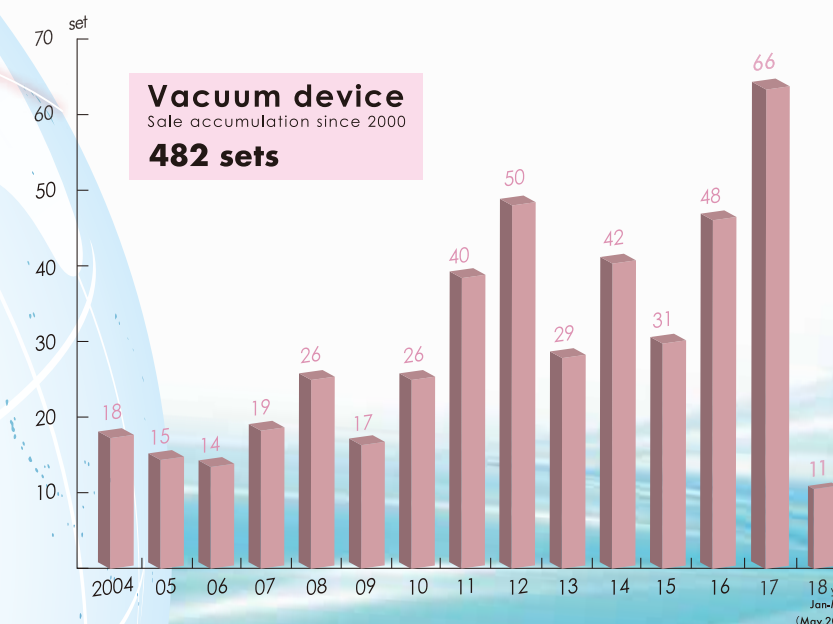
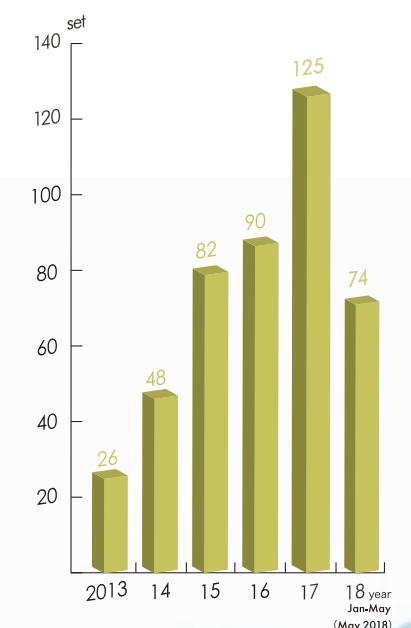
TEL : +66 (0) 84-916-7342

## Sale record



### Vacuum chill vent

Sale accumulation since 2000  
**445 sets**



# Vacuum valve for vacuum die cast

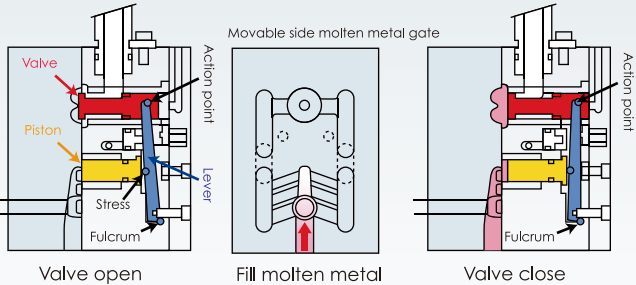
# ZM

ZM012 ZM038 ZM079 ZM154  
ZM020 ZM056 ZM113 ZM201

ZM series valve are adopted actively by our customers for its fast speed.

## Fast speed

- The action principle of valve is that the molten metal impact on lever which connects to valve to close the vacuum valve. To take advantage of this principle , the valve of our company can close in a very short time.



## Various model

- ZM series has various model which can apply to die lock force from 50 ton to 2250 ton die cast machine.

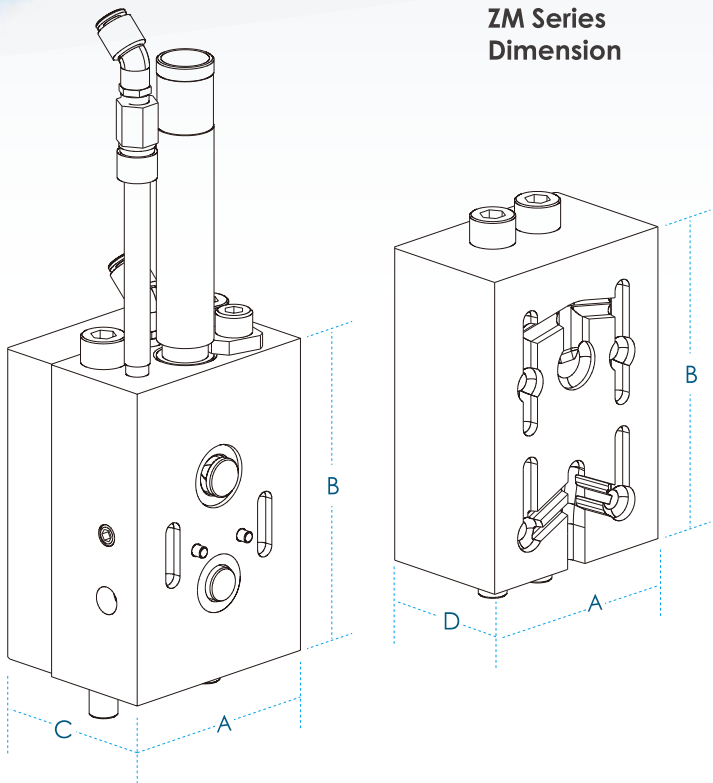
## Easy maintenance

- All the mechanical component concentrates on fixed side of valve , it is unnecessary to dismantle mold when vacuum valve is removed. All the consumables like piston or valve can be changed at any time.

## Low price

- For the same performance and quality, the price of our company is half or one third as much as the market price.

ZM Series Dimension



Vacuum valve infomation

Model	Dimension				Diameter of chip (mm)	Applicable die cast machine model (ton)
	A	B	C	D		
ZM012	35	62	37.3	16	~Φ50	~100
ZM020	40	67.5	47.5	20	Φ50~Φ60	~150
ZM038	60	92.5	60	40	Φ60~Φ70	~350
ZM056	80	115	65	50	Φ70~Φ80	~500
ZM079	90	120	70	50	Φ80~Φ100	~650
ZM113	100	145	75	50	Φ100~Φ120	~800
ZM154	105	162.5	80	50	Φ120~Φ140	~1250
ZM201	105	180	90	50	Φ140~Φ160	~2250



# Vacuum chill vent for vacuum die cast

CVV60-C    CVV60-D  
CVV80-C    CVV80-D  
CVV100-C   CVV100-D  
CVV120-C   CVV120-D

CVV series chill vent is designed on the basis of vacuum system research and is best choice for vacuum system .

CWV

## Special design for vacuum system

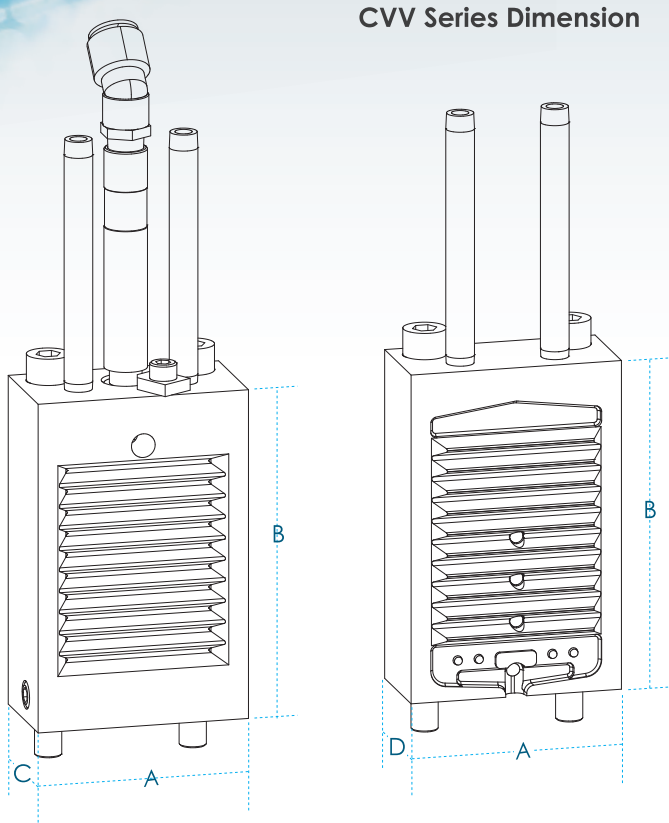
- The exhaust groove and ridge shape are designed on the basis of vacuum die cast.

## Easy maintenance

- It is unnecessary to dismantle mold to remove the chill vent .
- If the lubricant are sprayed properly, it is unnecessary to do regular maintenance frequently.

## Various model

- CVVseries can cope with 125t ~ 500t die casting machine and plentiful sizes to be chose.
- C series has cooling system.
- D series has no cooling system but compact design.



Vacuum chill vent infomation

Model		Dimension				Diameter of chip (mm)		Applicable die cast machine model (ton)	
		A	B	C	D	one used	two used	one used	two used
C series	CVV60-C	60	125	42.5	37.5	Φ50	Φ70	~125	~250
	CVV80-C	80	125	42.5	37.5	Φ55	Φ80	~125	~250
	CVV100-C	100	125	42.5	37.5	Φ65	Φ90	~250	~350
	CVV120-C	120	125	42.5	37.5	Φ70	Φ100	~250	~500
D series	CVV60-D	60	125	35	30	Φ50	Φ70	~125	~250
	CVV80-D	80	125	35	30	Φ55	Φ80	~125	~250
	CVV100-D	100	125	35	30	Φ65	Φ90	~250	~350
	CVV120-D	120	125	35	30	Φ70	Φ100	~250	~500

## Standard attachment

Fixed block×one · Movable block×one · Vacuum suction hose×one (tube connection)  
Cooling system hose×four sets (C series only) · Fixation screw× four  
Note : vacuum suction hoseφ12, one touch connection.

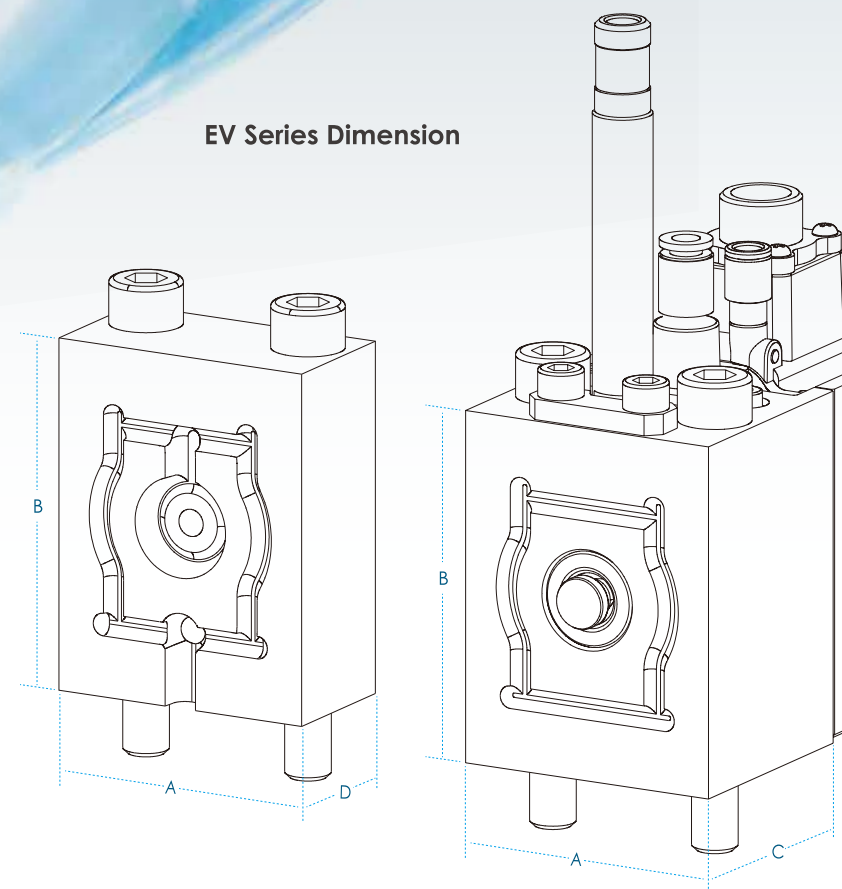
# Molten metal detected shut off valve

# EV

EV series has fastest action speed in this world.



EV Series Dimension



## Various model

- EVseries can cope with 125t~4200t die cast machine.

## Easy maintenance

- It is no necessary to dismantle mold for intallation of this valve. All the parts are in fixed side, so it is easy to do the maintenance. Otherwise, the main consumption are valve and valve bush which is available for change.

## Compact

- EVseries has more compact design than ZM series.

## Action speed

EV020	0.004±0.0005 sec
EV037	0.004±0.0005 sec
EV060	0.004±0.0005 sec
EV086	0.005±0.0005 sec
EV114	0.005±0.0005 sec
EV151	0.005±0.0005 sec
EV191	0.006±0.0005 sec
EV291	0.006±0.0005 sec
EV371	0.006±0.0005 sec

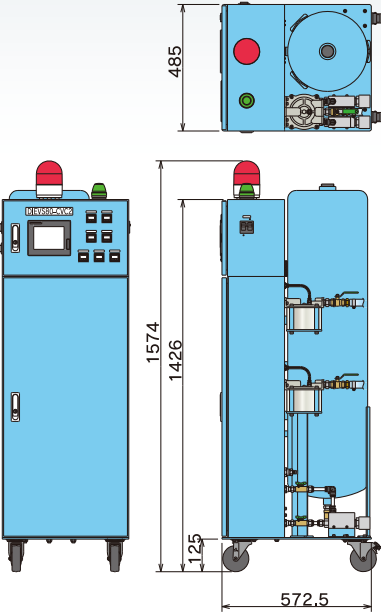
EV valve information

Model	Dimension				Diameter of chip (mm)	Applicable die cast machine model (ton)
	A	B	C	D		
EV020	50	67.5	67.5	30	Φ40~Φ50	~150
EV037	60	70	67.5	32.5	Φ55~Φ65	~350
EV060	80	100	70	35	Φ70~Φ85	~500
EV086	90	110	75	37.5	Φ85~Φ100	~650
EV114	100	120	77.5	40	Φ100~Φ120	~800
EV151	110	132.5	80	42.5	Φ110~Φ135	~1250
EV191	117.5	140	82.5	45	Φ125~Φ155	~2250
EV291	125	150	87.5	47.5	Φ155~Φ190	~3700
EV371	130	165	95	57.5	Φ175~Φ210	~4200

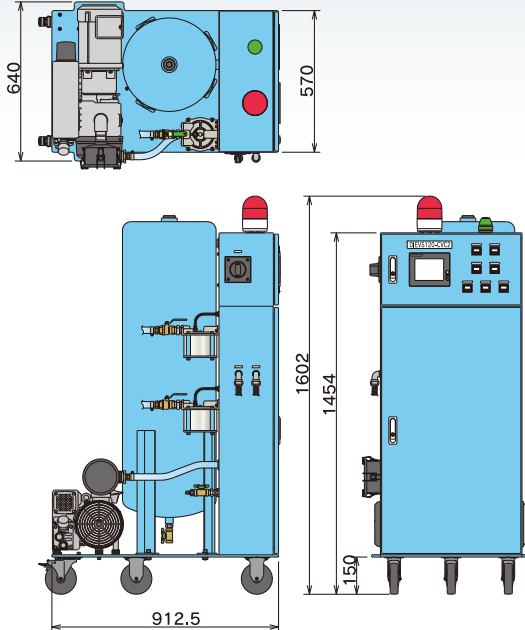




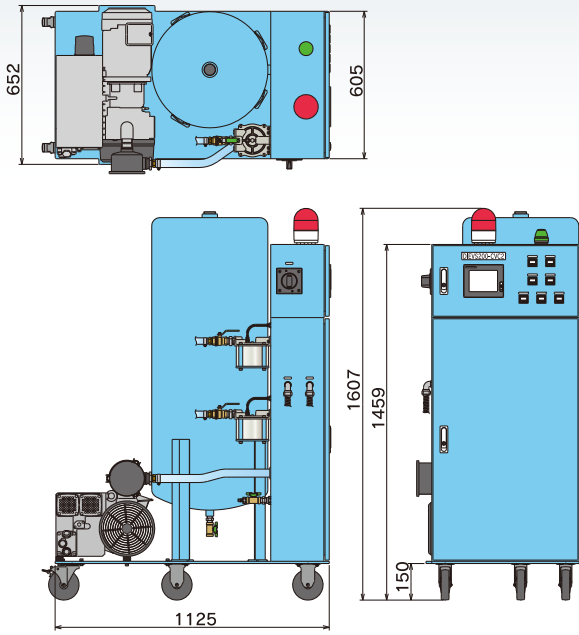
DIEVS80-CVC2



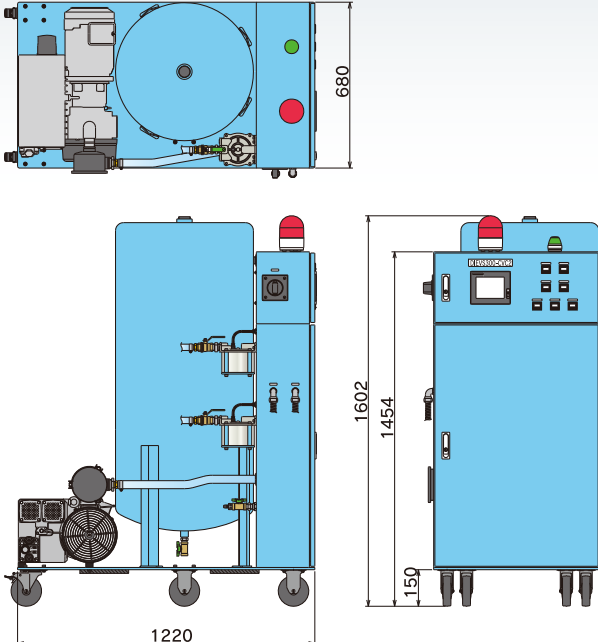
DIEVS120-CVC2



DIEVS200-CVC2



DIEVS300-CVC2



■ Specification

Model		DIEVS80-CVC2	DIEVS120-CVC2
Vacuum valve (Two at most)		ZM020 ZM038 ZM056	ZM056 ZM079 ZM113
Vacuum chill vent (Two at most)		CVV60~CVV120	
Tank volume		80 ℓ	120 ℓ
Vacuum morphosis	Vacuum method	Vacuum ejector	Vacuum pump BUSCH RA0040F
	Highest vacuum degree	-82kPa	-93kPa
	Common vacuum degree	-74kPa ~ -75kPa	-89kPa ~ -90kPa
	Air Consumption	185( ℓ /min)	-
Air supply	Air pressure	Above 0.45MPa	Above 0.4MPa
	Air supply ability	Above 185( ℓ /min)	Above 100( ℓ /min)
Power supply	Voltage	Single phase AC100V~AC240V [50/60Hz]	Three phase AC190V~AC208V or 380V~415V [50Hz] Three phase AC220V or 400V [60Hz] Three phase AC220V~AC230V or 440V~460V [60Hz]
	Output	60W	1.6kW ~ 1.8kW
Body Size	Dimension	W485×D572.5×H1574	W640×D912.5×H1602
	Weight	About 118kg	About 201kg
Connection detail	Vacuum suction hose for valve	φ 19 hose nipple connection (Hose band fixation)	φ 19 hose nipple or φ 25 hose nipple connection (Hose band fixation)
	Air for valve tube	φ 6 one touch connection	
	Stable air tube for valve	φ 6 one touch connection	
	Vacuum suction tube for chill vent	φ 12 one touch connection (Connection diameter PT1/2)	φ 12 one touch connection (Connection diameter PT1/2) <small>(According to customer's request, φ 16one touch connection is possible.)</small>
	Air supply hose	40PM(Nitto Koki Connection diameter PT1/2)	

■ Common specification

Device Joint Action Signal (I/O Signal)	
Input	Die close start signal, Die close finish signal, Injection signal (injection position signal), Extrusion signal(spray start signal), High speed no surge pressure signal ※1
Output	Device abnormal signal or device normal signal (it can switch by touch panel) , Buzzer alarm during abnormality
Relation function	Die close signal(start-finish) : Die cleaning , Injection signal : Vacuum suction , Extrusion signal : Valve cleaning , High speed no surge pressure signal : Air for valve during try shot
Signal property	a contact signal with no voltage
※1 High speed no surge pressure signal : Please make sure signal is output when Dcmachine is under high speed no surge pressure mode.	
Abnormal signal output	
Abnormal Content	●Clogged valve ●Unreachable vacuum degree ●Vacuum recovery time ●Air for valve pressure ●Vacuum tank pressure ●Inadequate air supply

■ Specification

		DIEVS200-CVC2	DIEVS300-CVC2
Vacuum valve (Two at most)		ZM079 ZM113 ZM154	ZM113 ZM154 ZM201
Vacuum chill vent (Two at most)		CVV60~CVV120	
Tank volume		200 ℓ	300 ℓ
Vacuum morphosis	Vacuum method	Vacuum pump BUSCH RA0063F	
	Highest vacuum degree	-93kPa	
	Common vacuum degree	-89kPa ~ -90kPa	
	Air Consumption	-	
Air supply	Air pressure	Above 0.4MPa	
	Air supply ability	Above 100( ℓ /min)	
Power supply	Voltage	Three phase AC190V~AC208V or 380V~415V [50Hz] Three phase AC220V or 400V [60Hz] Three phase AC220V~AC230V or 440V~460V [60Hz]	
	Output	2.1kW ~ 2.5kW	
Body Size	Dimension	W652×D1125×H1607	W680×D1220×H1602
	Weight	About 250kg	About 298kg
Connection detail	Vacuum suction hose for valve	φ 19 hose nipple or φ 25 hose nipple connection (Hose band fixation)	φ 25 hose nipple connection (Hose band fixation)
	Air for valve tube	φ 6 one touch connection	
	Stable air tube for valve	φ 6 one touch connection	
	Vacuum suction tube for chill vent	φ 12 one touch connection (Connection diameter PT1/2) <small>(According to customer's request, φ 16one touch connection is possible.)</small>	
	Air supply hose	40PM(Nitto Koki Connection diameter PT1/2)	

■ Common bundled items

・ Power supply cable ・ Signal cable ・ Demachine side connector ・ Vacuum suction hose or tube ・ Air supply hose