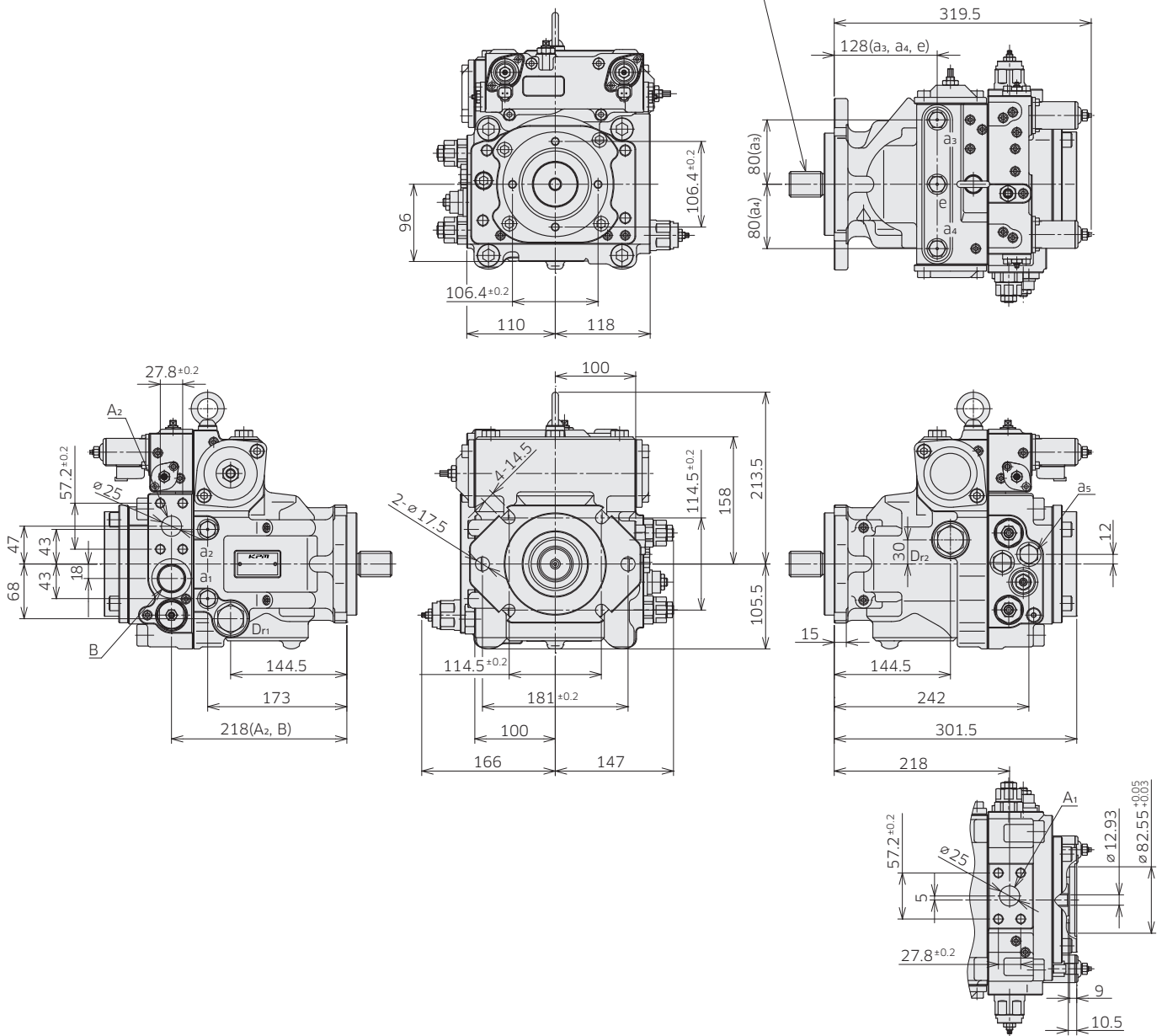


# K8V series Axial Piston Pumps Catalog

## ◆ K8V71

Model Code : K8V 71 B R C1 A1 \* A \* X X X X - P1 \* \* \* A \* \*

SAE "C" 30° Involute Spline Shaft  
SAE J744-32-4 14T 12/24 DP



(Note) See port details for thread size on port A1 and A2.

# 3-1 Installation Dimensions

## ◆ K8V71 Port Details

### Main flanged ports

Des	Port name	Port size	Flange thread	Tightening torque (Nm)
-----	-----------	-----------	---------------	------------------------

### UNF thread version

A <sub>1</sub> , A <sub>2</sub>	Pressure port	SAE J518C high pressure (Code 62) 1"	7/16-14UNC-2B-17-21.5	69
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### Metric thread version

A <sub>1</sub> , A <sub>2</sub>	Pressure port	SAE J518C high pressure (Code 62) 1"	M12-17	98
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### Auxiliary port

Des	Port name	Port size	Tightening torque (Nm)
Dr <sub>1</sub> , Dr <sub>2</sub>	Drain port	1-1/16-12UN-2B-19 (ISO 11926-1 : 1995)	170
a <sub>1</sub> , a <sub>2</sub> , a <sub>3</sub> , a <sub>4</sub>	Gauge port	9/16-18UNF-2B-12.7 (ISO 11926-1 : 1995)	59
B	Inlet port	1-5/16-12UN-2B-19 (ISO 11926-1 : 1995)	300
a <sub>5</sub>	Gauge port	3/4-16UNF-2B-15 (ISO 11926-1 : 1995)	98
e	Air vent port	9/16-18UNF-2B-12.7 (ISO 11926-1 : 1995)	59
F <sub>1</sub>	External filter port (out)	3/4-16UNF-2B-15 (ISO 11926-1 : 1995)	98
F <sub>2</sub>	External filter port (in)	3/4-16UNF-2B-15 (ISO 11926-1 : 1995)	98
C	External charge pressure supply port	3/4-16UNF-2B-15 (ISO 11926-1 : 1995)	98
Pi <sub>1</sub> , Pi <sub>2</sub>	Pilot port	9/16-18UNF-2B-12.7 (ISO 11926-1 : 1995)	59

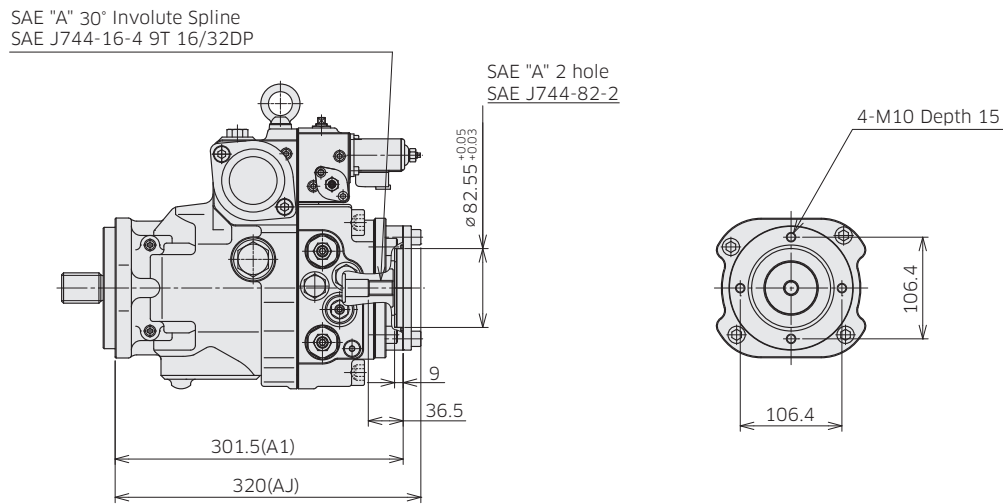
# 3-1 Installation Dimensions

\*Dimensions in mm.

## ◆ K8V71 Through Drive Options

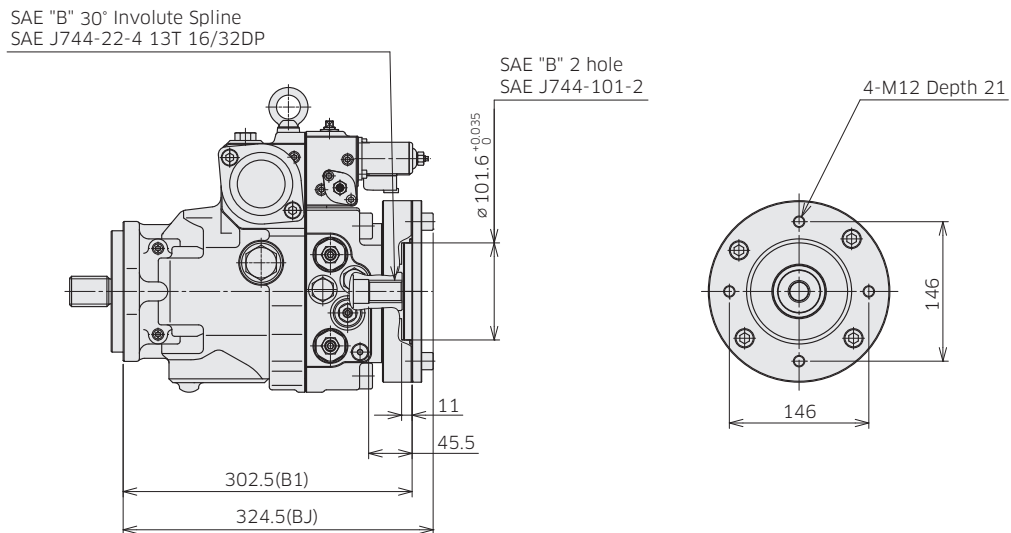
### Through Drive SAE A

Ordering Code '6.Through Drive' : A1, AJ



### Through Drive SAE B

Ordering Code '6.Through Drive' : B1, BJ



Involute spline according to ANSI B92.1a, 30° pressure angle, flat root, side fit

# 3-1 Installation Dimensions

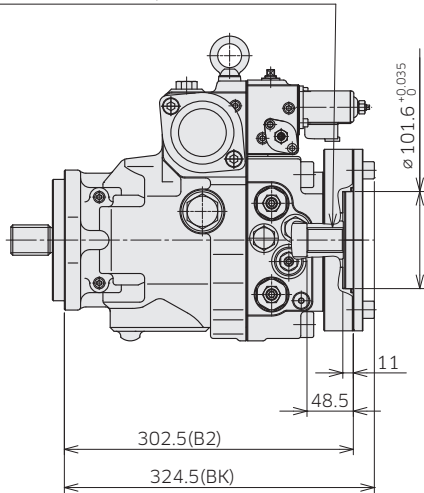
\*Dimensions in mm.

## ◆ K8V71 Through Drive Options

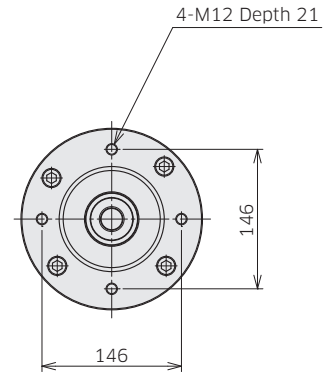
### Through Drive SAE BB

Ordering Code '6.Through Drive' : B2, BK

SAE "BB" 30° Involute Spline  
SAE J744-25-4 15T 16/32DP



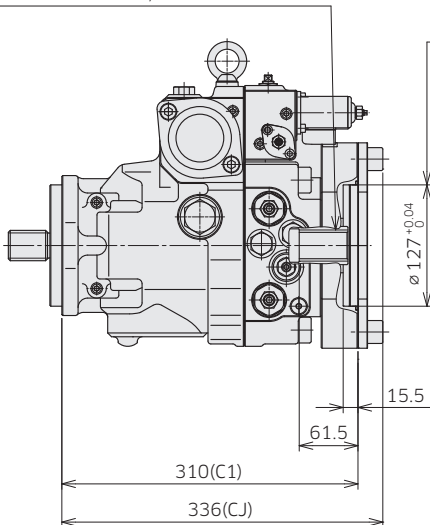
SAE "BB" 2 hole  
SAE J744-101-2



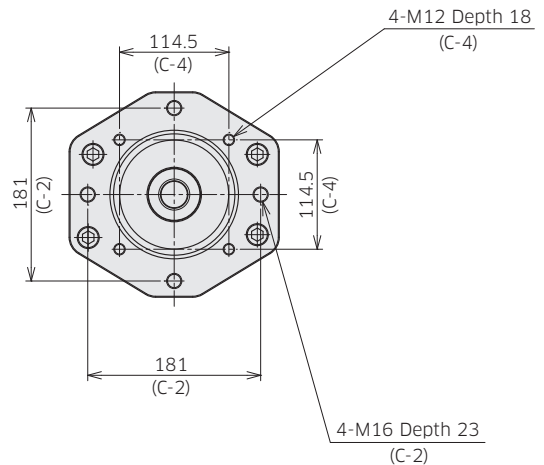
### Through Drive SAE C

Ordering Code '6.Through Drive' : C1, CJ

SAE "C" 30° Involute Spline  
SAE J744-33-4 14T 12/24DP



SAE "C" 2/4 hole  
SAE J744-127-2/4



Involute spline according to ANSI B92.1a, 30° pressure angle, flat root, side fit

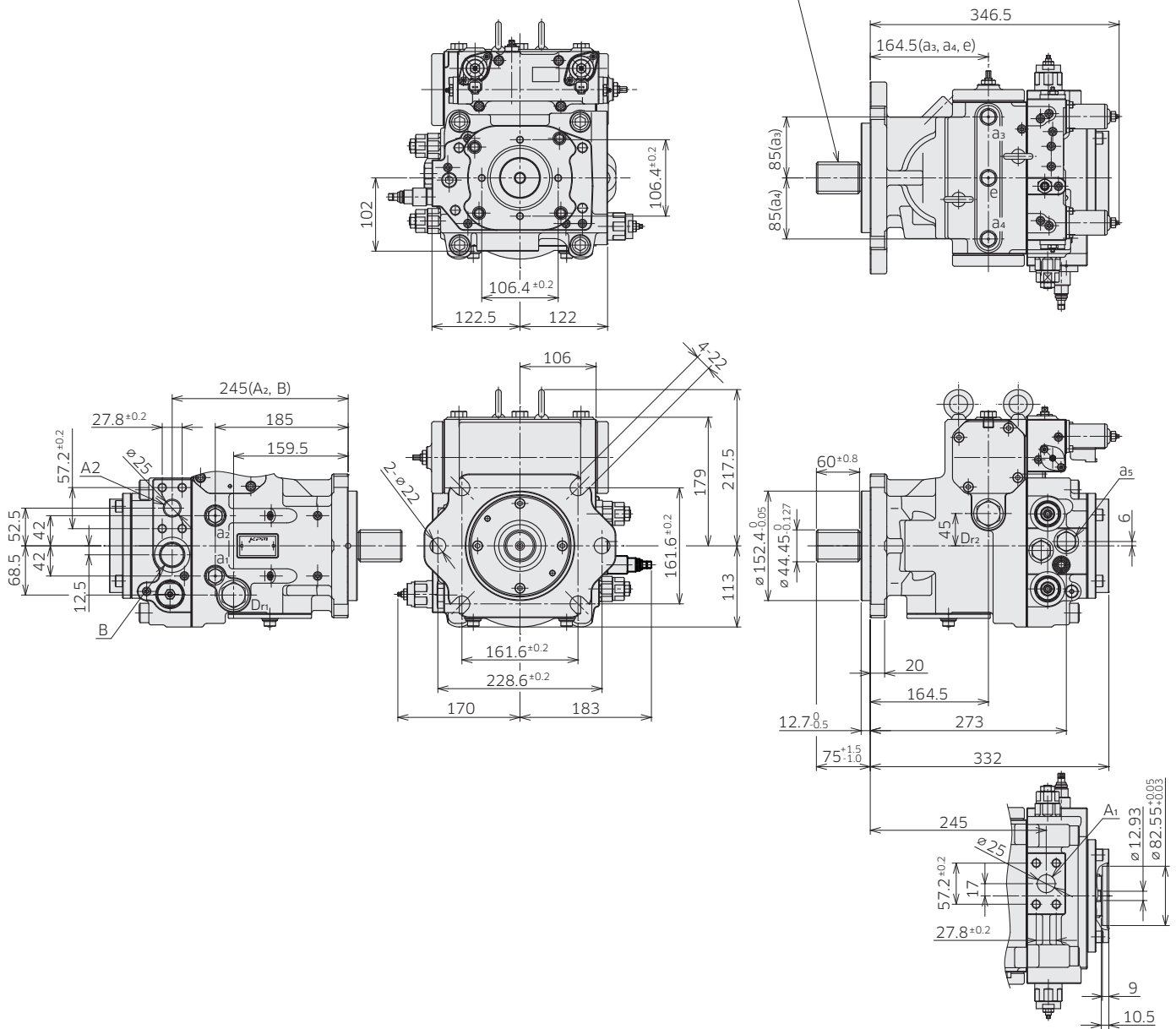
# 3-1 Installation Dimensions

\* Dimensions in mm.

## ◆ K8V90

Model Code : K8V 90 B R D1 A1 \* A \* X X X X - P1 \* \* \* A \* \*

SAE "D" 30° Involute Spline Shaft  
SAE J744-44-4 13T 8/16 DP



(Note) See port details for thread size on port A1 and A2.

# 3-1 Installation Dimensions

## ◆ K8V90 Port Details

### Main flanged ports

Des	Port name	Port size	Flange thread	Tightening torque (Nm)
-----	-----------	-----------	---------------	------------------------

### UNF thread version

A <sub>1</sub> , A <sub>2</sub>	Pressure port	SAE J518C high pressure (code 62) 1"	1/2-13UNC-2B-19/24	69
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### Metric thread version

A <sub>1</sub> , A <sub>2</sub>	Pressure port	SAE J518C high pressure (code 62) 1"	M12-17	98
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### Auxiliary port

Des	Port name	Port size	Tightening torque (Nm)
Dr <sub>1</sub> , Dr <sub>2</sub>	Drain port	1-1/16-12UN-2B-19 (ISO 11926-1 : 1995)	170
a <sub>1</sub> , a <sub>2</sub> , a <sub>3</sub> , a <sub>4</sub>	Gauge port	9/16-18UNF-2B-12.7 (ISO 11926-1 : 1995)	59
B	Inlet port	1-5/16-12UN-2B-19 (ISO 11926-1 : 1995)	300
a <sub>5</sub>	Gauge port	7/8-14UNF-2B-16.7 (ISO 11926-1 : 1995)	143
e	Air vent port	9/16-18UNF-2B-12.7 (ISO 11926-1 : 1995)	59
F <sub>1</sub>	External filter port (out)	7/8-14UNF-2B-16.7 (ISO 11926-1 : 1995)	143
F <sub>2</sub>	External filter port (in)	7/8-14UNF-2B-16.7 (ISO 11926-1 : 1995)	143
C	External charge pressure supply port	7/8-14UNF-2B-16.7 (ISO 11926-1 : 1995)	143
Pi <sub>1</sub> , Pi <sub>2</sub>	Pilot port	9/16-18UNF-2B-12.7 (ISO 11926-1:1995)	59

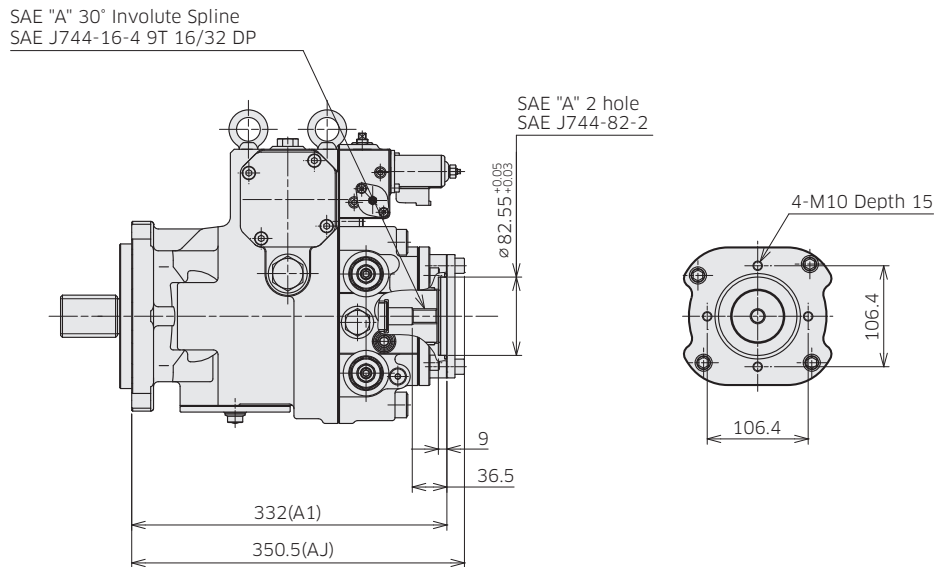
# 3-1 Installation Dimensions

\*Dimensions in mm.

## ◆ K8V90 Through Drive Options

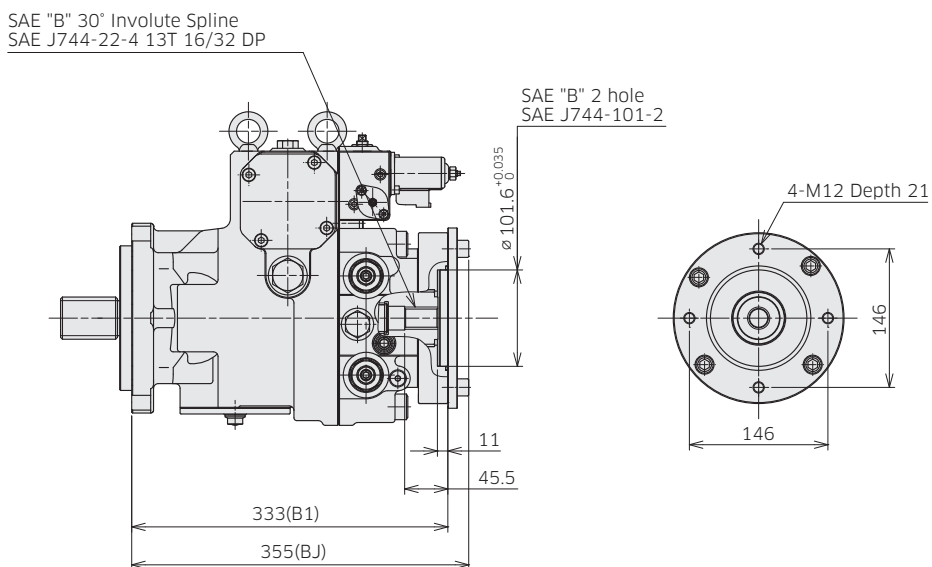
### Through Drive SAE A

Ordering Code '6.Through Drive' : A1, AJ



### Through Drive SAE B

Ordering Code '6.Through Drive' : B1, BJ



Involute spline according to ANSI B92.1a, 30° pressure angle, flat root, side fit

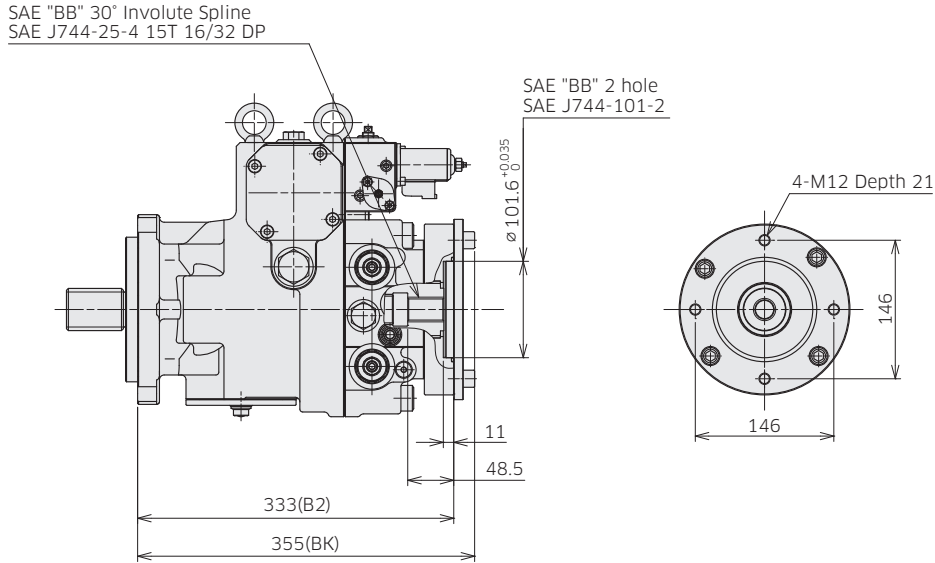
# 3-1 Installation Dimensions

\* Dimensions in mm.

## ◆ K8V90 Through Drive Options

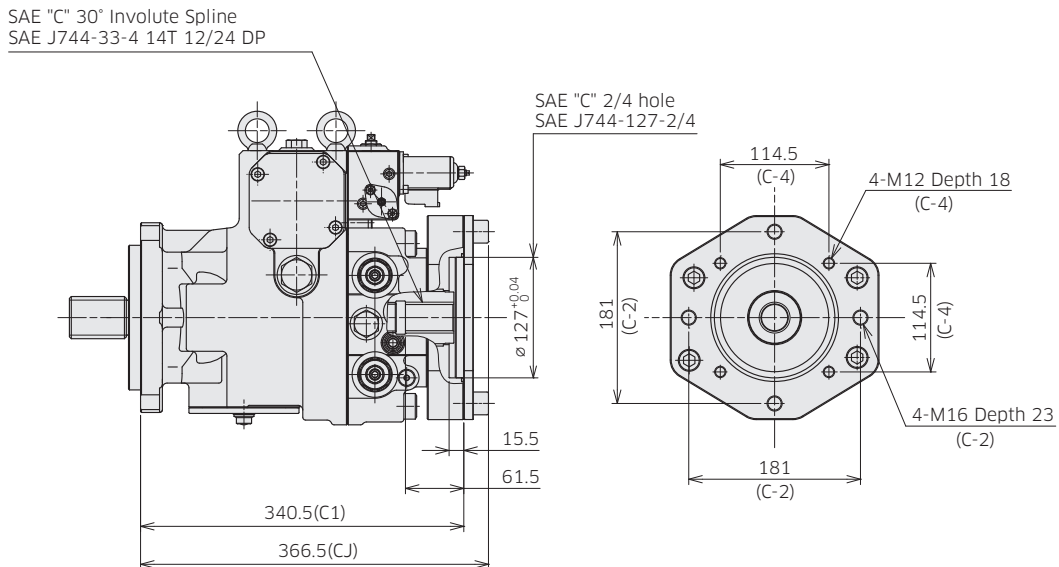
### Through Drive SAE BB

Ordering Code '6.Through Drive' : B2, BJ



### Through Drive SAE C

Ordering Code '6.Through Drive' : C1, CJ





# 3-1 Installation Dimensions

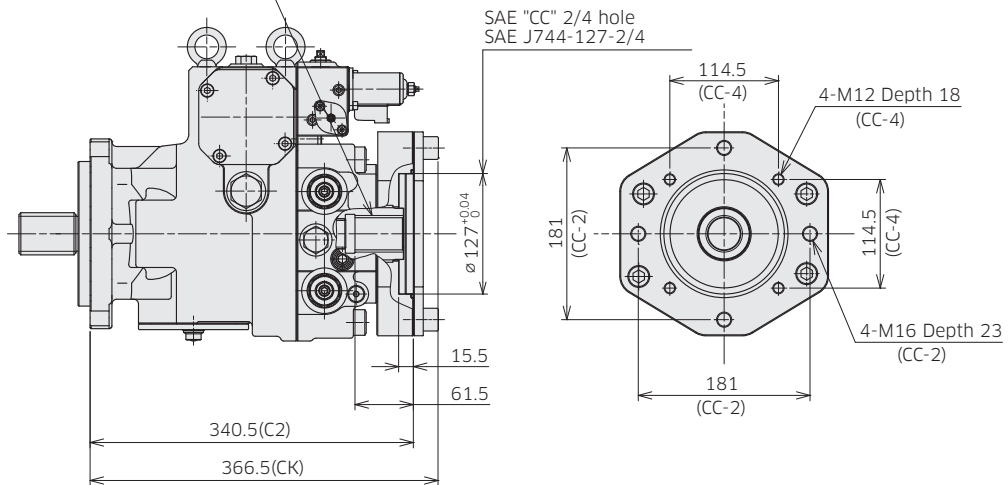
\*Dimensions in mm.

## ◆ K8V90 Through Drive Options

**Through Drive SAE CC**

**Ordering Code '6.Through Drive' : C2, CJ**

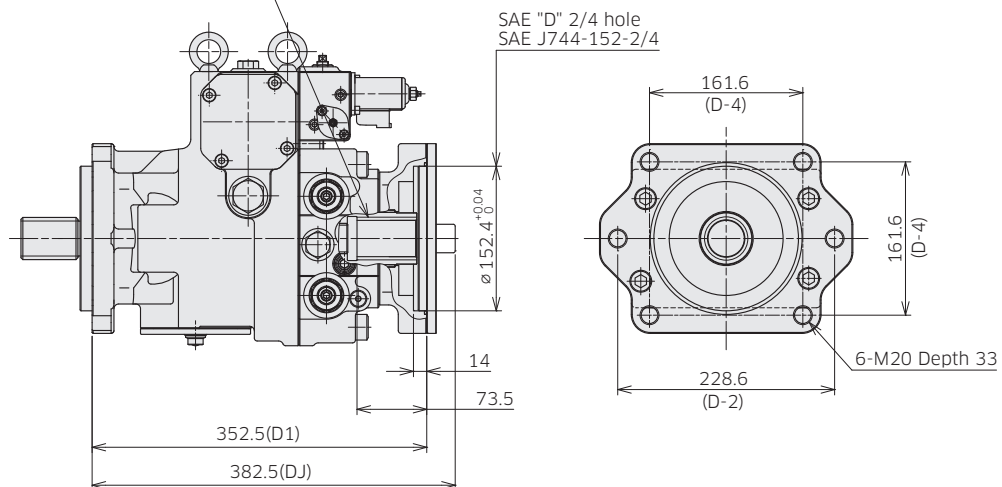
SAE "CC" 30° Involute Spline  
SAE J744-38-4 17T 12/24 DP



**Through Drive SAE D**

**Ordering Code '6.Through Drive' : D1, DJ**

SAE "D" 30° Involute Spline  
SAE J744-47-4 13T 8/16 DP



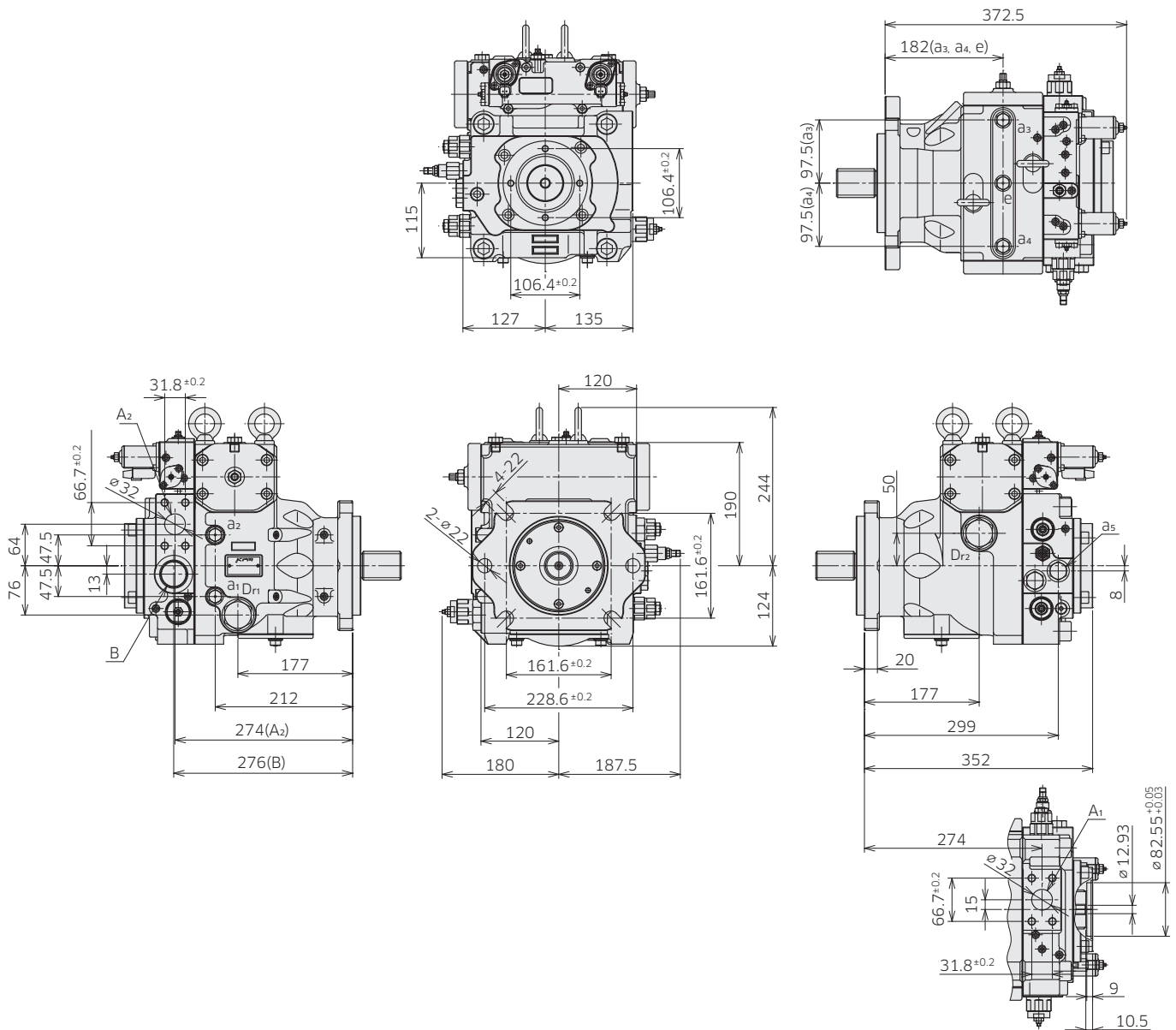
Involute spline according to ANSI B92.1a, 30° pressure angle, flat root, side fit

# 3-1 Installation Dimensions

\*Dimensions in mm.

## ◆ K8V125

Model Code : K8V 125 B R D1 A1 \* B \* X X X X - P1 \* \* \* A \* \*



(Note) See port details for thread size on port A1 and A2.

# 3-1 Installation Dimensions

\*Dimensions in mm.

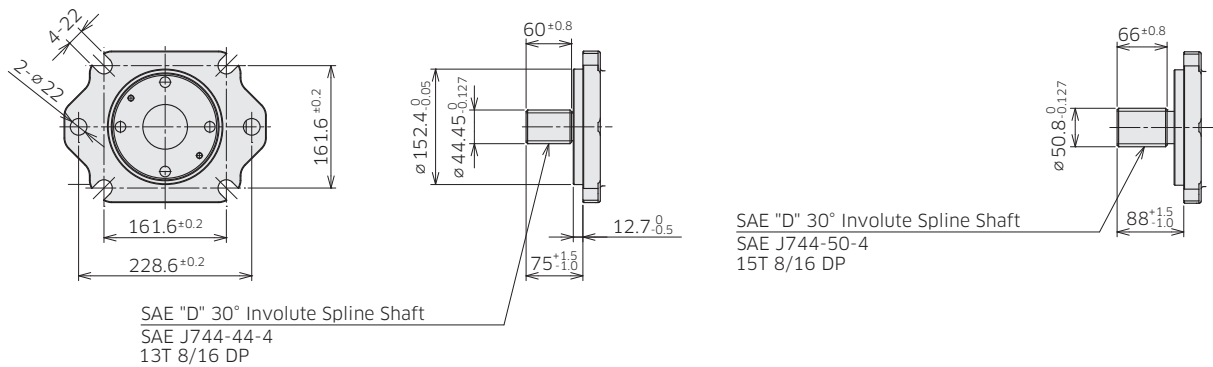
## ◆ K8V125 Mounting Flange and Shaft Options

**SAE D Spline Shaft**

**Ordering Code '5.Mounting Flange and Shaft' : D1**

**SAE F Spline Shaft**

**Ordering Code '5.Mounting Flange and Shaft' : D2**



## ◆ K8V125 Port Details

Main flanged ports

Des	Port name	Port size	Flange thread	Tightening torque (Nm)
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UNF thread version

A <sub>1</sub> , A <sub>2</sub>	Pressure port	SAE J518C high pressure (code 62) 1-1/4"	1/2-13UNC-2B-19/24	98
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Metric thread version

A <sub>1</sub> , A <sub>2</sub>	Pressure port	SAE J518C high pressure (code 62) 1-1/4"	M14-19	157
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Auxiliary port

Des	Port name	Port size	Tightening torque (Nm)
Dr <sub>1</sub> , Dr <sub>2</sub>	Drain port	1-5/16-12UN-2B-19 (ISO 11926-1 : 1995)	300
a <sub>1</sub> , a <sub>2</sub> , a <sub>3</sub> , a <sub>4</sub>	Gauge port	9/16-18UNF-2B-12.7 (ISO 11926-1 : 1995)	59
B	Inlet port	1-5/8-12UN-2B-24 (ISO 11926-1 : 1995)	350
a <sub>5</sub>	Gauge port	7/8-14UNF-2B-16.7 (ISO 11926-1 : 1995)	143
e	Air vent port	9/16-18UNF-2B-12.7 (ISO 11926-1 : 1995)	59
F <sub>1</sub>	External filter port (out)	7/8-14UNF-2B-16.7 (ISO 11926-1 : 1995)	143
F <sub>2</sub>	External filter port (in)	7/8-14UNF-2B-16.7 (ISO 11926-1 : 1995)	143
C	External charge pressure supply port	7/8-14UNF-2B-16.7 (ISO 11926-1 : 1995)	143
Pi <sub>1</sub> , Pi <sub>2</sub>	Pilot port	9/16-18UNF-2B-12.7 (ISO 11926-1 : 1995)	59

# 3-1 Installation Dimensions

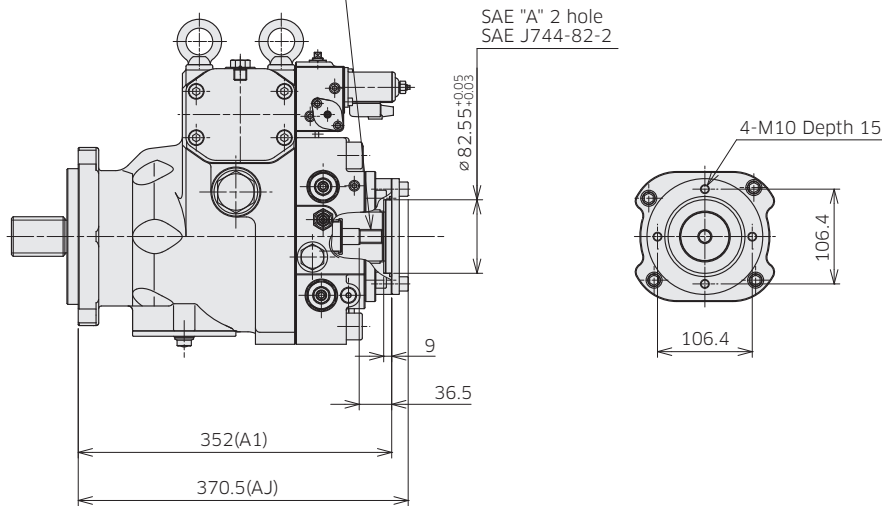
\*Dimensions in mm.

## ◆ K8V125 Through Drive Options

### Through Drive SAE A

Ordering Code '6.Through Drive' : A1, AJ

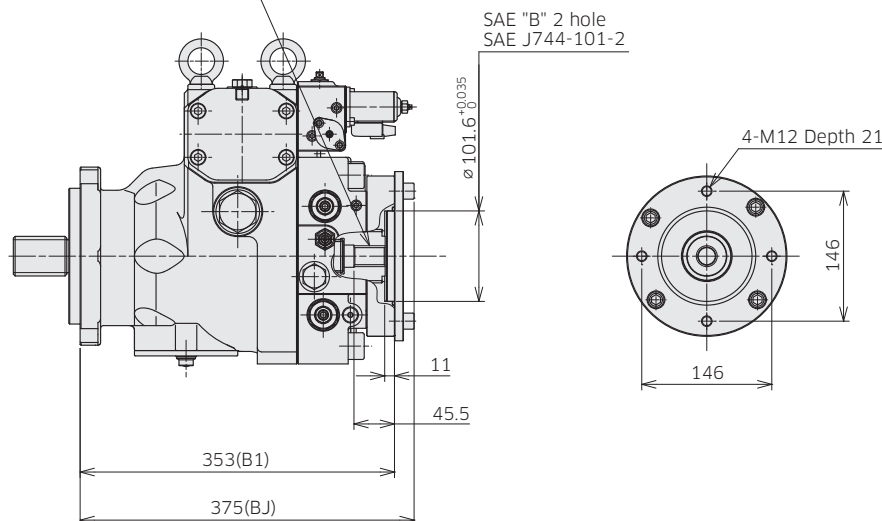
SAE "A" 30° Involute Spline  
SAE J744-16-4 9T 16/32 DP



### Through Drive SAE B

Ordering Code '6.Through Drive' : B1, BJ

SAE "B" 30° Involute Spline  
SAE J744-22-4 13T 16/32 DP



Involute spline according to ANSI B92.1a, 30° pressure angle, flat root, side fit

# 3-1 Installation Dimensions

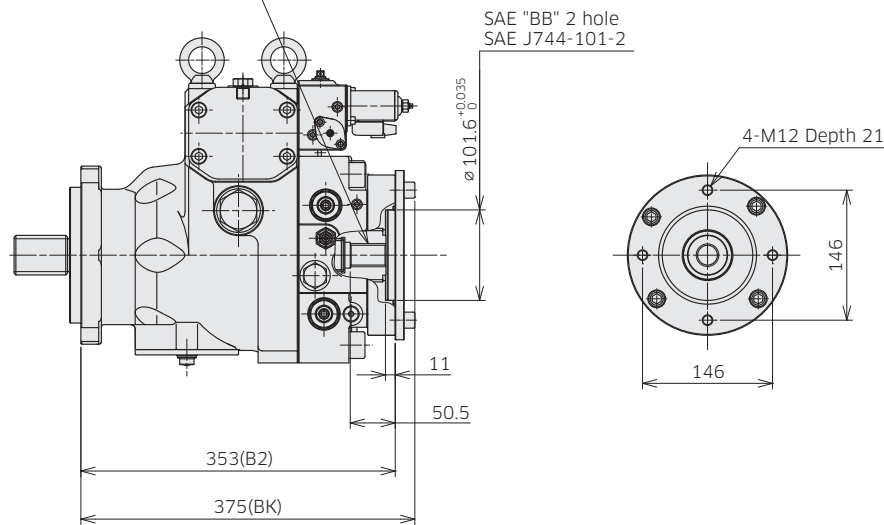
\*Dimensions in mm.

## ◆ K8V125 Through Drive Options

### Through Drive SAE BB

Ordering Code '6.Through Drive' : B2, BK

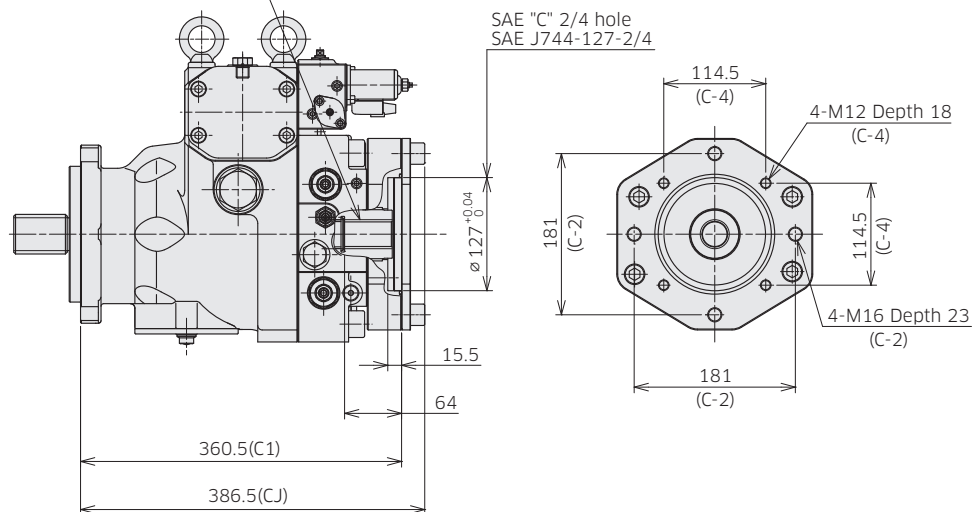
SAE "BB" 30° Involute Spline  
SAE J744-25-4 15T 16/32 DP



### Through Drive SAE C

Ordering Code '6.Through Drive' : C1, CJ

SAE "C" 30° Involute Spline  
SAE J744-33-4 14T 12/24 DP



Involute spline according to ANSI B92.1a, 30° pressure angle, flat root, side fit

# 3-1 Installation Dimensions

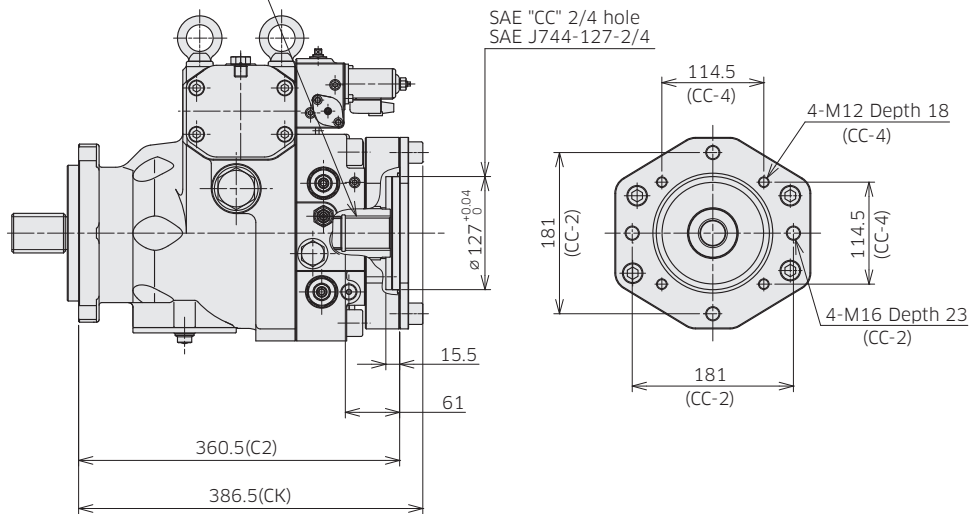
\*Dimensions in mm.

## ◆ K8V125 Through Drive Options

### Through Drive SAE CC

Ordering Code '6.Through Drive' : C2, CK

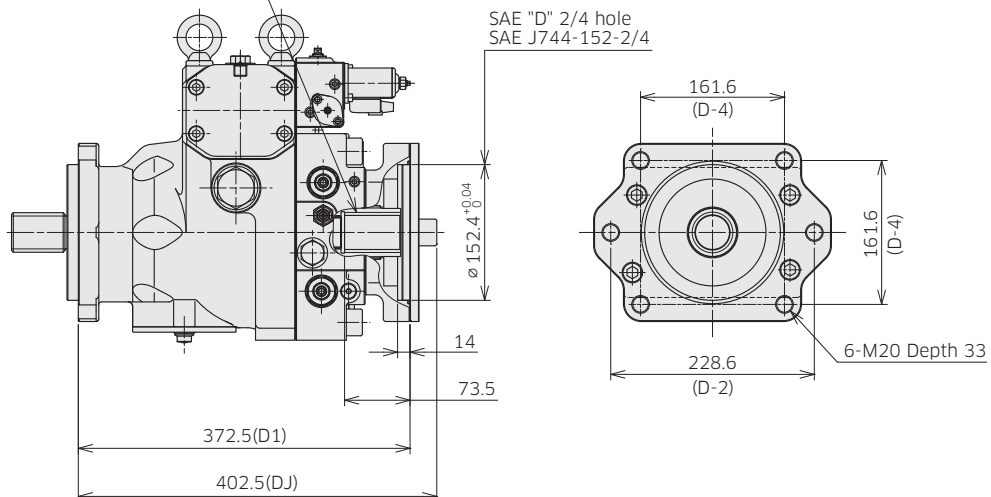
SAE "CC" 30° Involute Spline  
SAE J744-38-4 17T 12/24 DP



### Through Drive SAE D

Ordering Code '6.Through Drive' : D1, DJ

SAE "D" 30° Involute Spline  
SAE J744-47-4 13T 8/16 DP



Involute spline according to ANSI B92.1a, 30° pressure angle, flat root, side fit

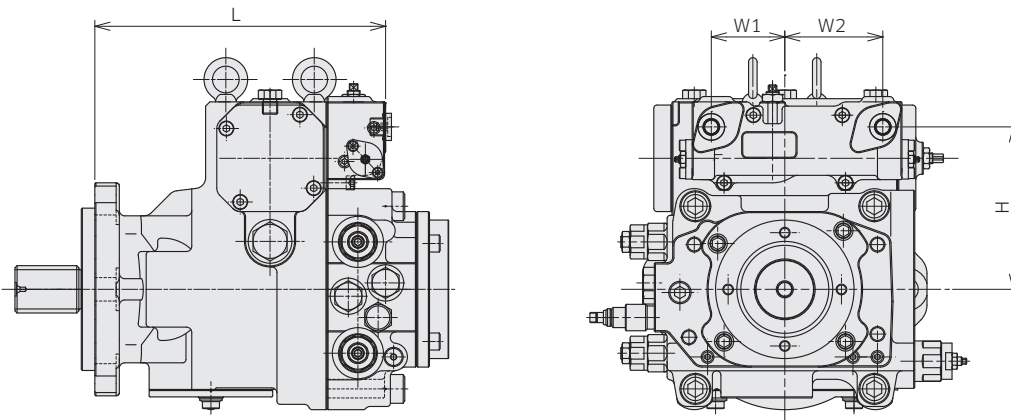
## 3-1 Installation Dimensions

### ◆ Hydraulic Pilot Displacement Control

K8V71 Model Code : K8V 71 B R C1 A1 C A C X X X X - P3 \* \* \* A \* \*

K8V90 Model Code : K8V 90 B R D1 A1 C A C X X X X - P3 \* \* \* A \* \*

K8V125 Model Code : K8V 125 B R D1 A1 C A B X X X X - P3 \* \* \* A \* \*



(Dimensions : mm)

	L	W1	W2	H
K8V71	246	69	92	139
K8V90	273	69	92	152.5
K8V125	299	69	92	167.5

## 3-2 Installation of Auxiliary Pumps

### ■ Allowable mass moment for combination pump

K8V series allows combination of multiple pumps using through drive mounting. Any pump up to the same size of the first pump may be mounted to the first pump.

In case of tandem configuration comprising of two pumps of the same rated size the allowable maximum dynamic acceleration to the pump unit is 10G. No additional mounting support is necessary in connecting two pumps, but use a 4-bolt mounting on the first pump when installing the pump unit. If the third pump is to be mounted on the rear of the second pump, the pump mass moment at the mounting flange shall be within the rated mass moment. Also, the input torque on the shaft needs to be within the limit of input torque tolerance. (See "Allowable maximum input torque" on page 13)

### ■ Total length of tandem unit (Dimensions: mm)

First pump	Second pump		
	K8V71	K8V90	K8V125
K8V71	611.5	-	-
K8V90	642	685	-
K8V125	662	704.5	724.5

