

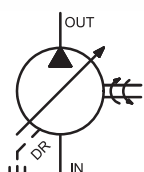


AR Axial piston pump

AR series axial piston pump



- 1.Small and light design,space saving.
- 2.Special alloy material,power saving,low noise,long life.
- 3.Easy to assemble,exquisite appearance ang light weight.
- 4.Application for NC lathe,MC machine,bending machine,punch hydraulic press,high efficiency machine.



nominal pressure:165 bar
max. pressure:210 bar
single operation period: 210bar /6ms

Quick reference data chart

Size	Model	Displacement		Pump Delivery (7 bar) 100 PSI				Pressure Adj Range		Speed		Weight
		cm ³ /rev	In ³ /rev	1500 RPM		1800 RPM		B bar (Mpa)	C bar (Mpa)	Max. RPM	Min. RPM	KG (LB)
				LPM	U.S. GPM	LPM	U.S. GPM					
1	AR8	8.0	0.48	12	3.17	14.4	3.8	12~70 (1.2~7)	12~210 (1.2~21)	1800	500	9(19.84)
2	AR10	10.0	0.61	15	3.9	18	4.76					
3	AR12	12.0	0.73	18	4.76	21.6	5.73					
4	AR16	15.8	0.96	23.7	6.26	28.44	7.51					
5	AR22	22.2	1.35	33.3	8.8	39.96	10.56					

- 1.Installation outlet port top, the pipe bave to less than 2 bar.
- 2.The use of max. pressure override 6 minunt, hydraulic oil clean that see General Installation Infomation.
- 3.YEOSHE offer tandem pumps, and other pumps connection, the connection type use Metric version and SAE version dimensions.



Type code for standard program

1	2	3	4	5	6	7	8	9	10	-	11
Series	Size and displacement	Mounting	Rotation	Control device	Pressure adjusting	Port position	Shaft type	Threads code	Voltage		Design No.

Series

1	Axial piston pump	nominal pressure 165 bar	max. pressure 210 bar	single operation period 210bar /6ms	AR
---	-------------------	-----------------------------	--------------------------	--	----

Size and displacement

2	Code	8	10	12	16	22	
	Size	1	2	3	4	5	
	Displacement cm^3/rev	8.0	10.0	12.0	15.8	22.2	
	In^3/rev	0.48	0.61	0.73	0.96	1.35	$\text{In}^3 = 16.378 \text{ cm}^3$

Mounting

3	Flange mtg	F
	Foot mtg	L

Rotation

4	 clockwise	R
	 counter clockwise	L

Control type

	Standard pressure control	01
	Remote pressure control	G
	Load-sensing control	HL ☐
	Pressure	
	☐ A Low : 7KG	
	☐ B Mid : 14KG	
	☐ C High : 21KG	
	2-stage pressure & Flow control	C
	2-stage pressure & Flow control + Remote	CG
	2-stage pressure & Flow control + Low tension unloading	CR
5	Low tension unloading + Pressure control + Remote	D
	Low tension unloading + Pressure control + Remote	DG
	Electric 2-stage pressure control	E
	Electric 2-stage pressure control + Remote	EG
	Electric 2-stage pressure & Flow control	F
	Electric 2-stage pressure & Flow control + Remote	FG
	Remote pressure compensator with NG6 interface	GM
	Remote pressure compensator + Proportional pressure valve	GJ

Type code for standard program

1	16	F	R	01	C	S	K	10		-		11
Series	Size and displacement	Mounting	Rotation	Control device	Pressure adjusting	Port position	Shaft type	Threads code	Voltage		Design No.	

A

3

AR Axial piston pump

Control type

5	Remote pressure compensator + Electrical unloading	GR
	Remote pressure compensator + 2-stage pressure control	GB
	Remote pressure compensator + Electrical unloading + 2-stage pressure control	GC
	None pressure compensator (fixed displacement) (pressure protection required)	LN
	Electrical 2-stages flow compensator	LS
	Fixed displacement 2 stage flow compensator (pressure protection required)	LC

Pressure adjusting

6	2~70 bar 1.2 ~ 7 Mpa	B
	12~210 bar 1.2 ~ 21 Mpa	C

Port position

7	None: Axial Port	☐
	Side Port	S
	Outlet flange type	F

Shaft type

8	Key	K
	Splind shaft 13T 16 / 32 DP	G
	Splind shaft 9T 16 / 32 DP	T

Threads type

9	PT(RC)	10	※
	BSPP (G)	40	
	NPT	50	

Voltage

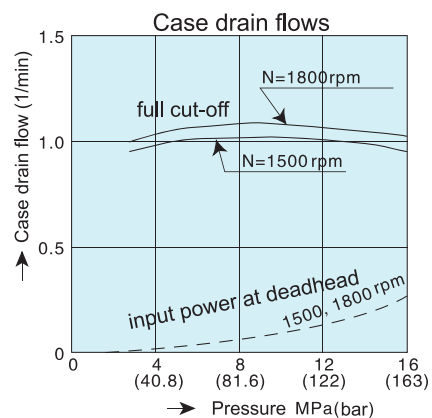
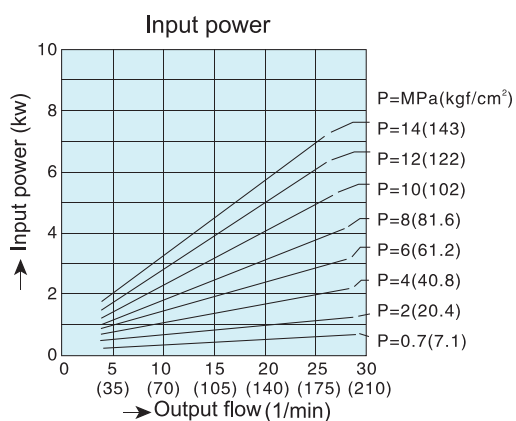
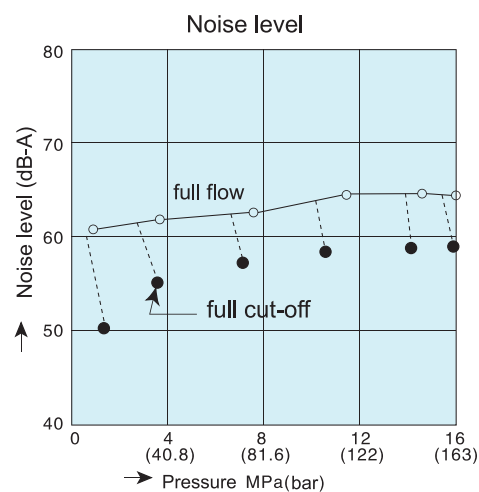
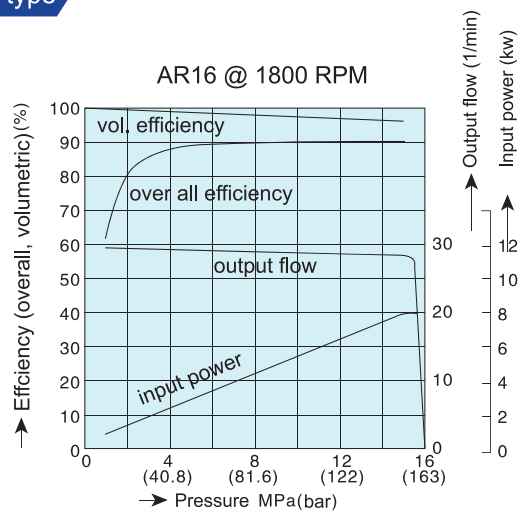
10	None	Y	※
	AC100V (50/60HZ)	A	
	AC110V (60HZ)	B	
	AC200V (50/60HZ)	C	
	AC220V (60HZ)	D	
	DC 12V	E	
	DC 24V	F	

※ standard type

Diagrams

Speed: 1800 r/min Hydraulic oil: ISO VG32 Oil temperature: 50°C

AR16 type



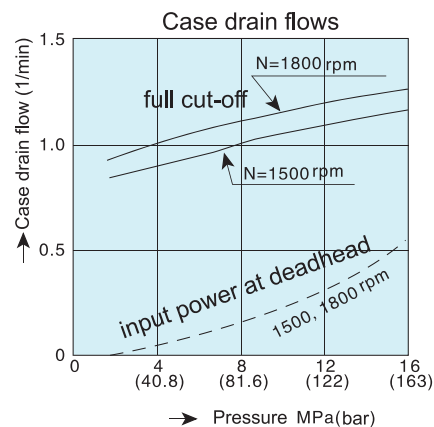
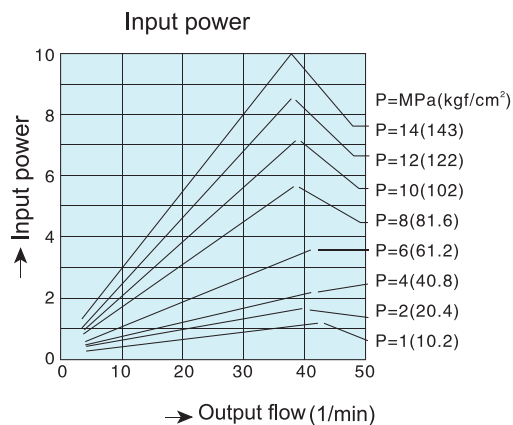
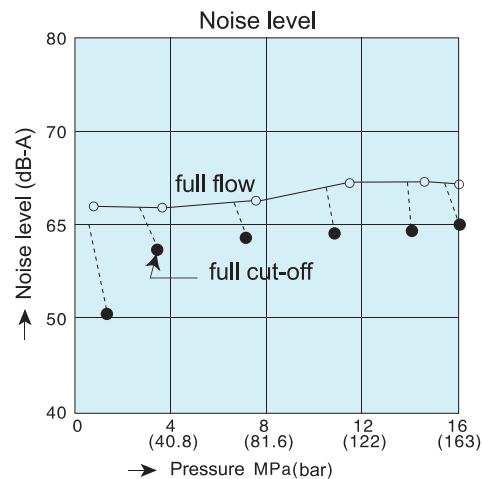
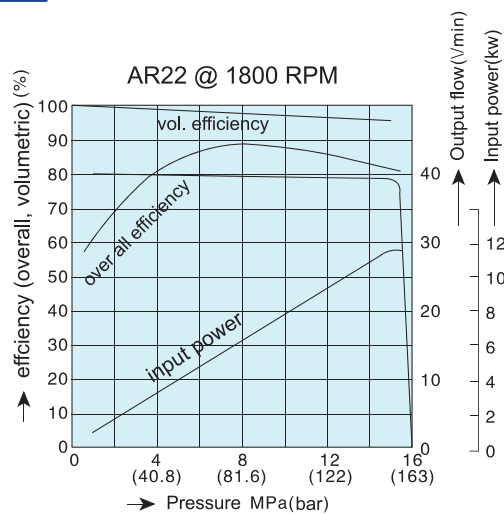
Test condition:

The noise of the single pump is according to the standard of DIN45 635, the rule of land 26 at low echo measure laboratory, measuring that the distance of microphone is 1m and 1500rpm.

Diagrams

Speed: 1800 r/min Hydraulic oil: ISO VG32 Oil temperature: 50°C

AR22 type



Test condition:

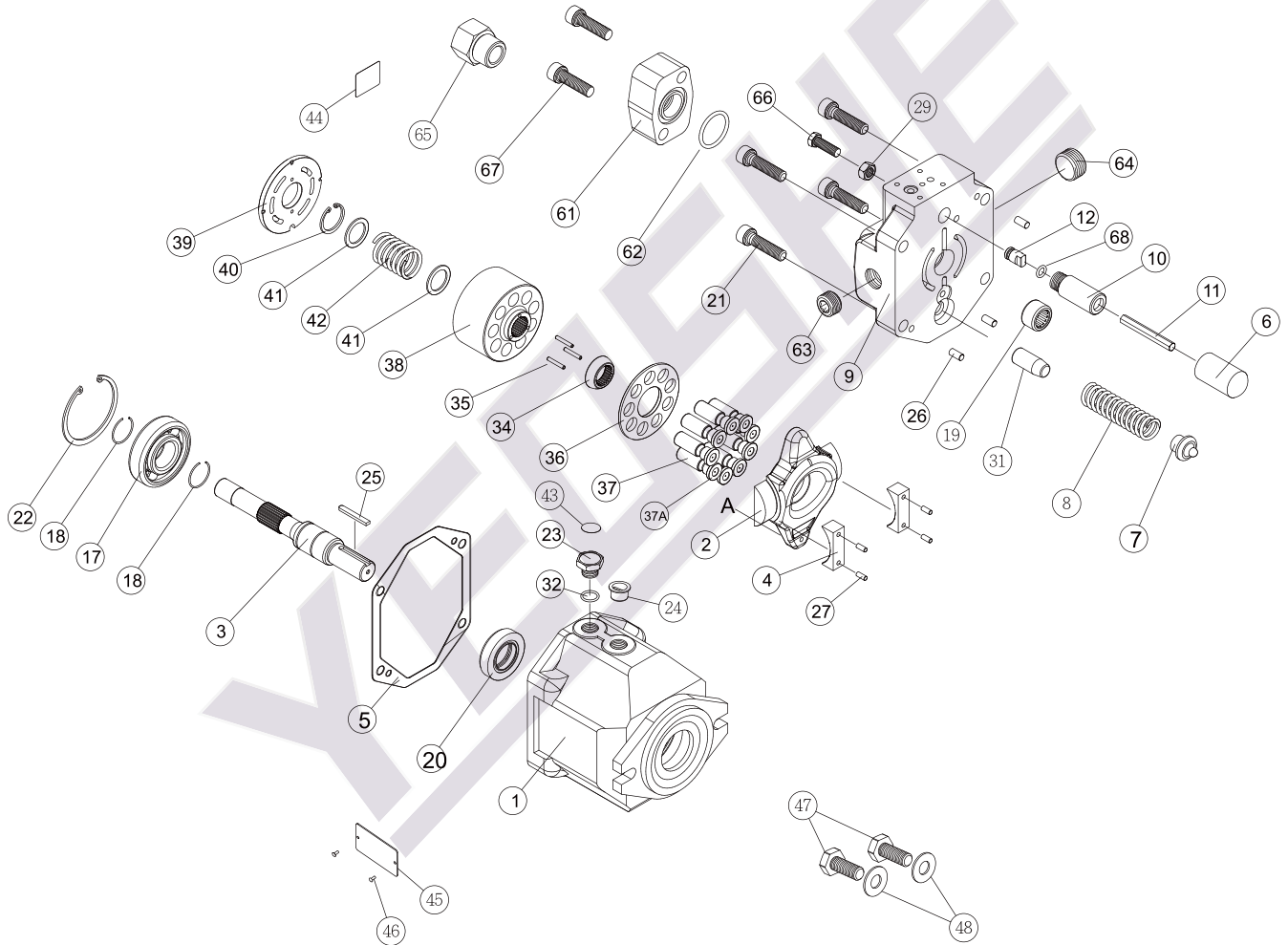
The noise of the single pump is according to the standard of DIN45 635, the rule of land 26 at low echo measure laboratory, measuring that the distance of microphone is 1m and 1500rpm.

AR Axial piston pump exploded view

A

6

AR Axial piston pump



AR Axial piston pump exploded view

A

7

AR Axial piston pump

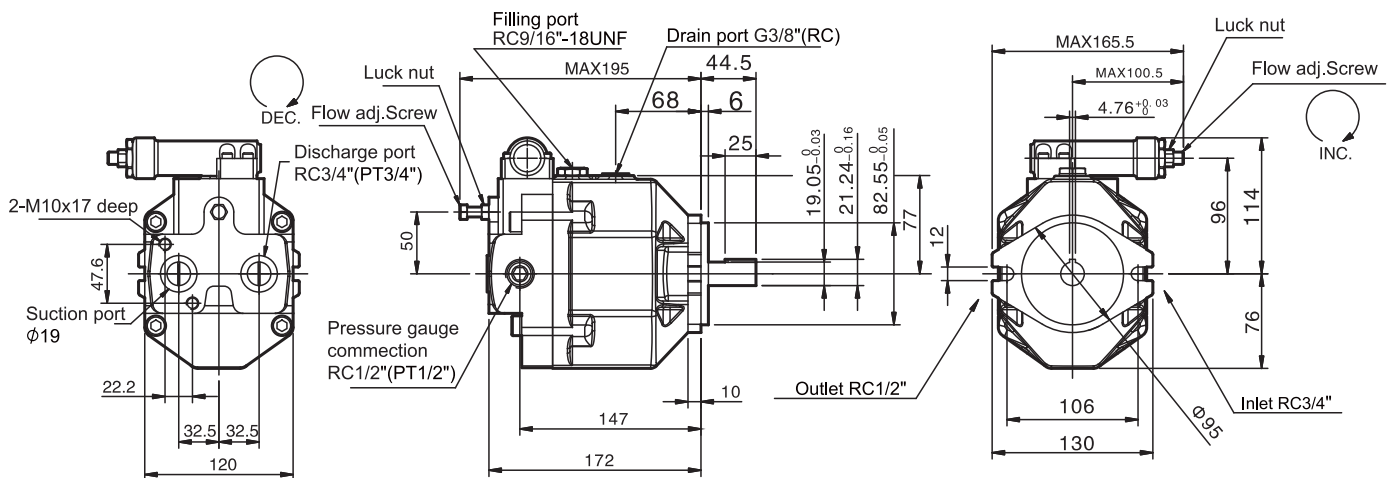
AR16,22 pump

Item		Item	
1	Pump body	31	Sleeve piston
2	Swashplate	32	O-ring
3	Shaft	34	Ball guide
4	Trunnion carrier	35	Pin-cylinder block
5	Body seal	36	Slipper retainer
6	Servo piston sleeve	37A	Piston shose
7	Servo carrier	37	Piston assembly
8	Servo spring	38	Cylinder block
9	Pump cover	39	Valve plate
10	Flow sleeve	40	Snap ring
11	Flow pin	41	Washer cylinder block
12	Seal pin	42	Spring-cylinder block
17	Shaft bearing	43	Circular sticker
18	Snap ring	44	Square sticker
19	Cover bearing	45	Nameplate
20	Shaft seal	46	Motor pin
21	Cover screw	47	Screw
22	Snap ring	48	Washer
23	Screw	61	Flange
24	Plug	62	O-ring
25	Key	63	Plug
26	Roller	64	Plug
27	Pin-trunnion carrier	65	Adaptor
29	Nut	66	Spindle
		67	Screw
		68	O-ring

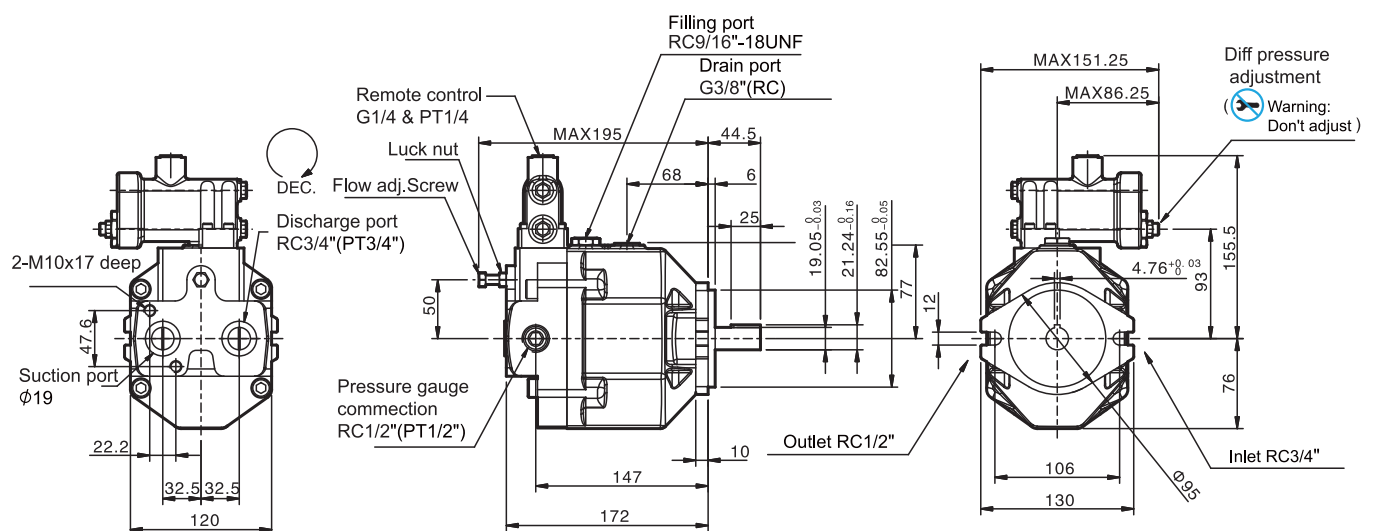


AR16 / 22 01

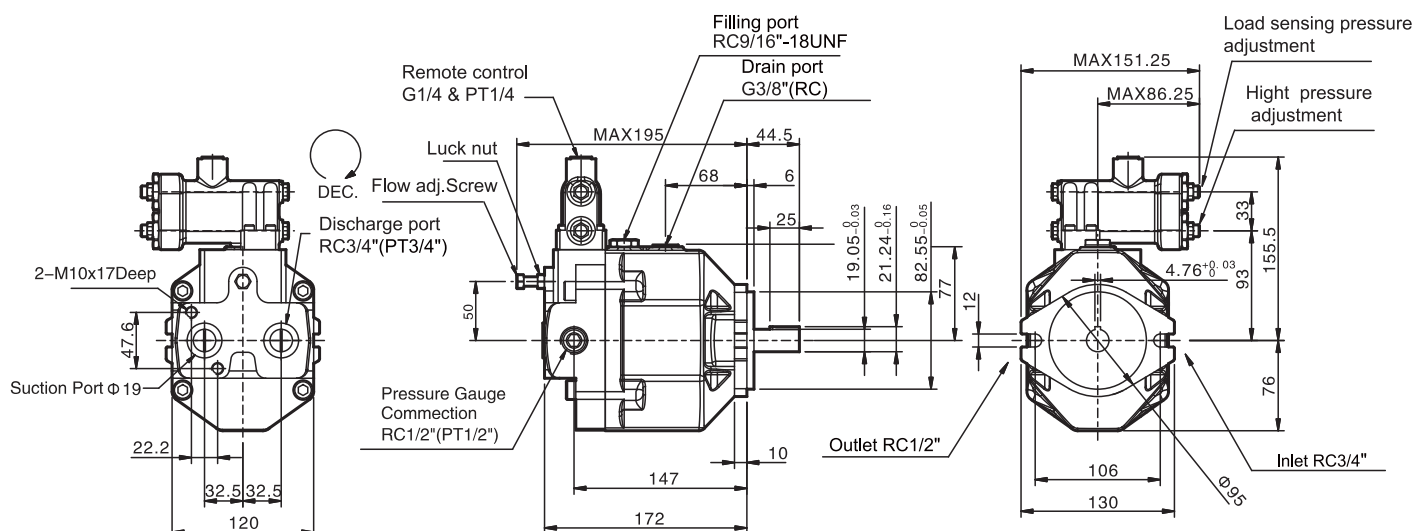
AR Axial piston pump



AR16 / 22 G



AR16 / 22HL



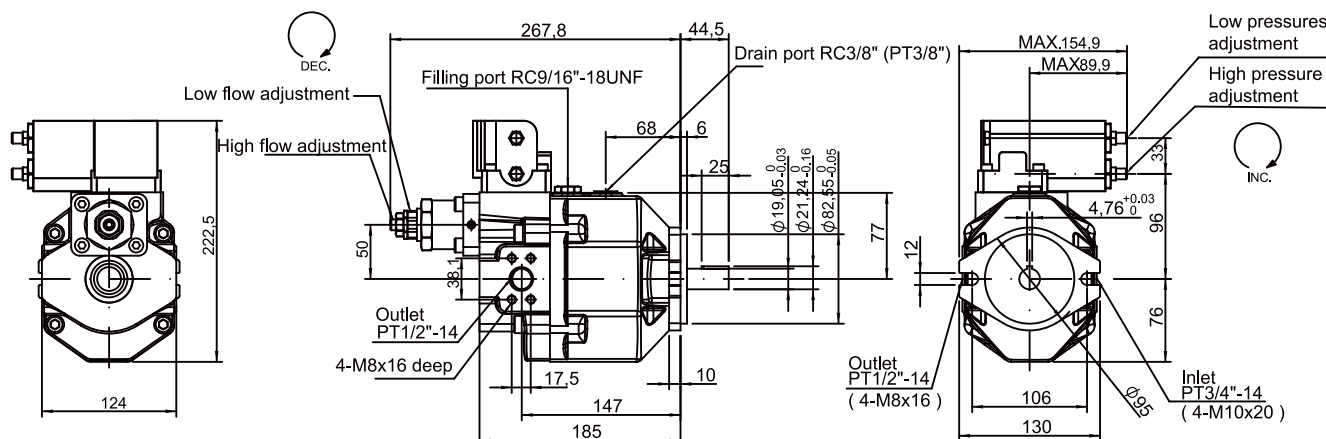
Dimension

AR16 / 22C

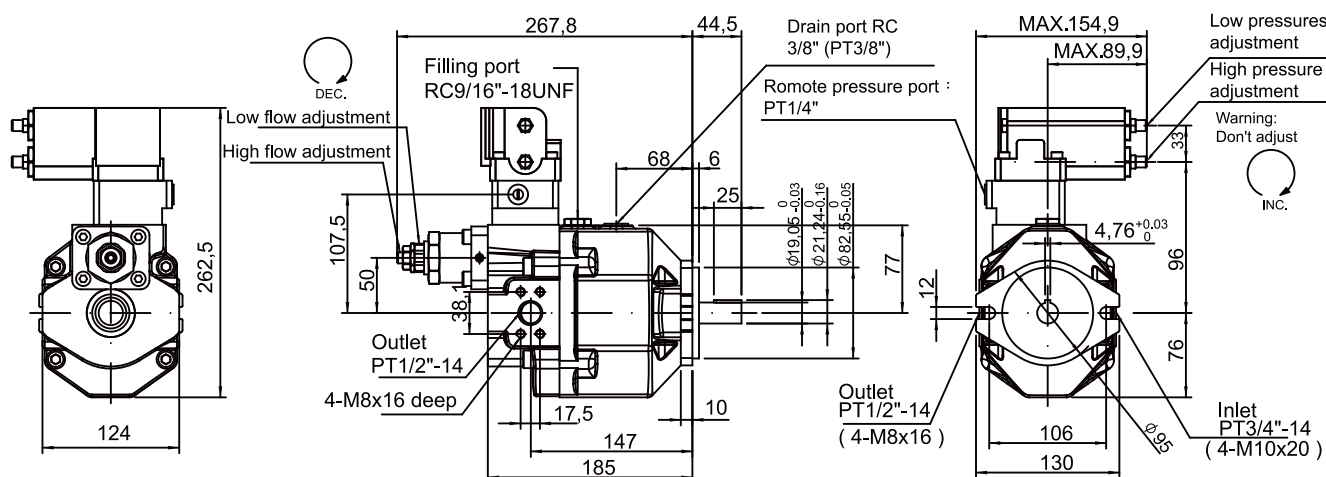
A

9

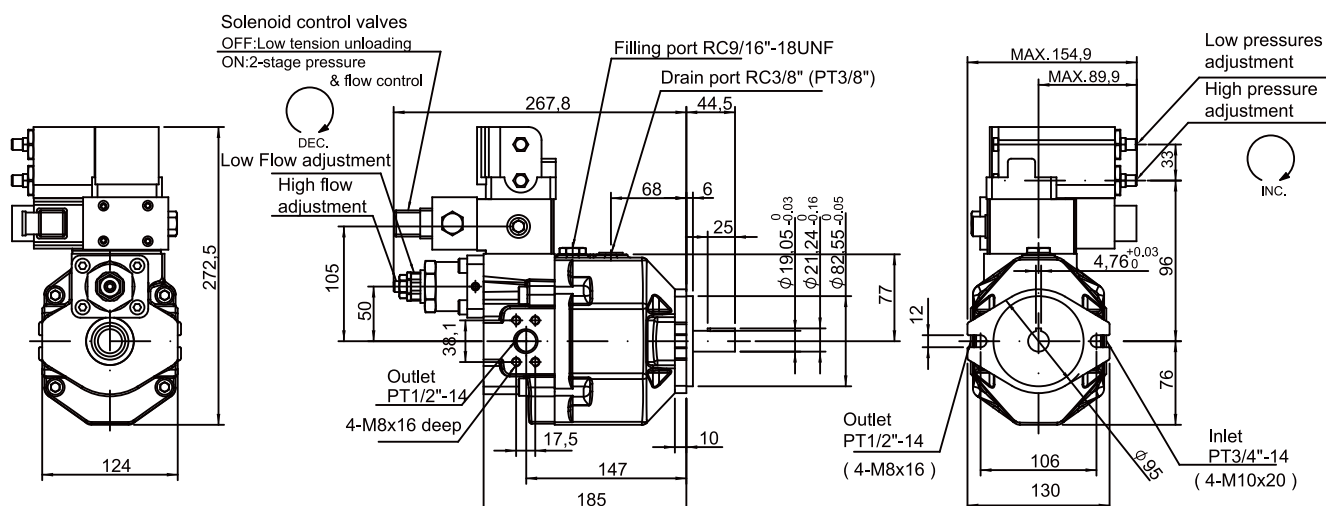
AR Axial piston pump



AR16 / 22 CG



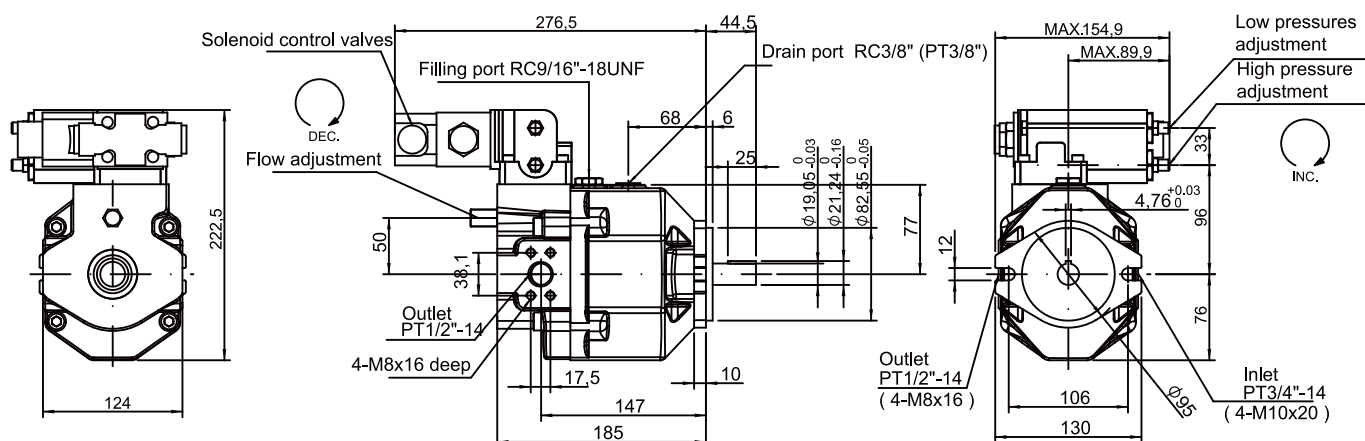
AR16 / 22 CR



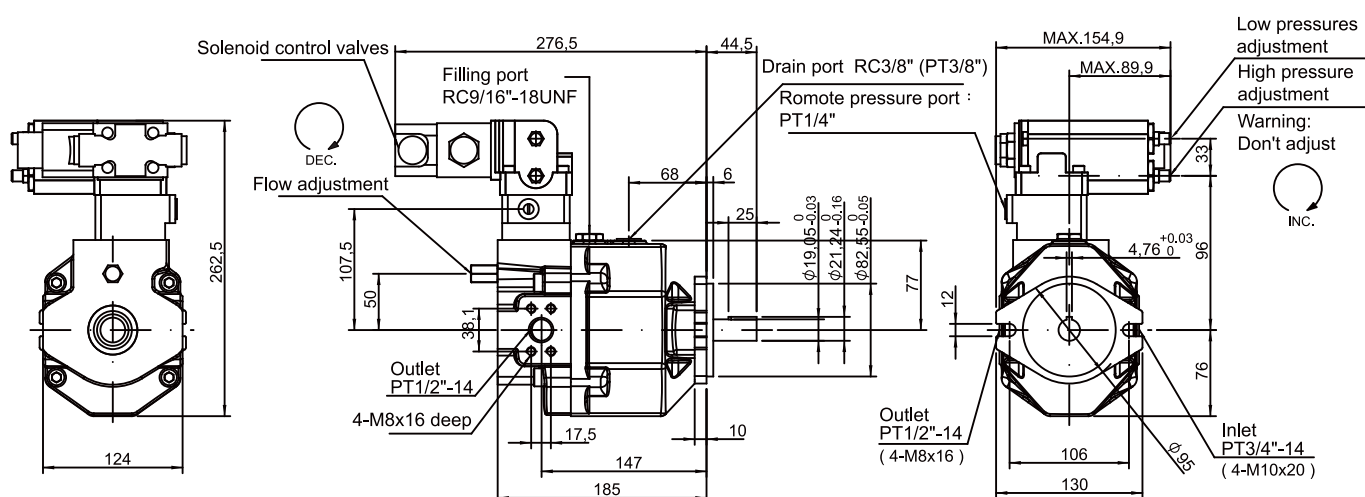


Dimension

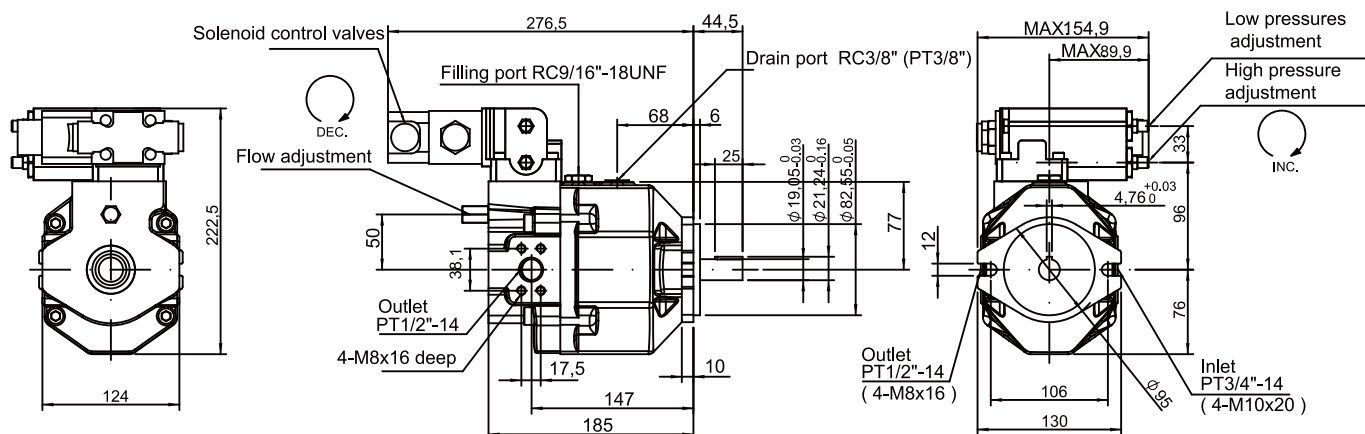
AR16 / 22D



AR16 / 22 DG

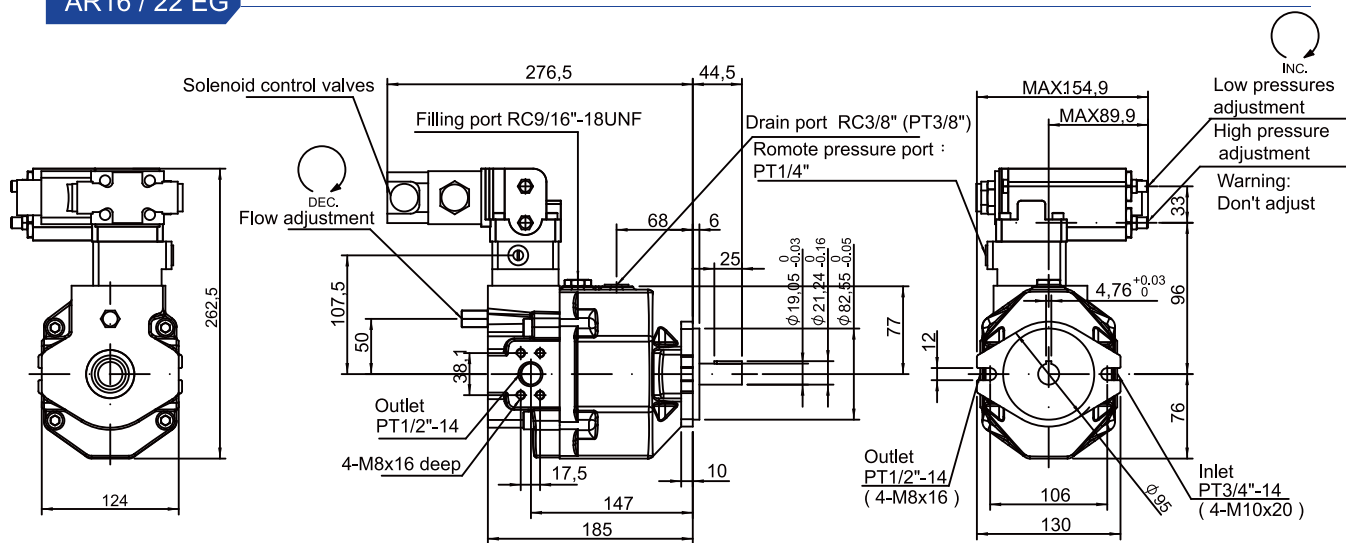


AR16 / 22 E

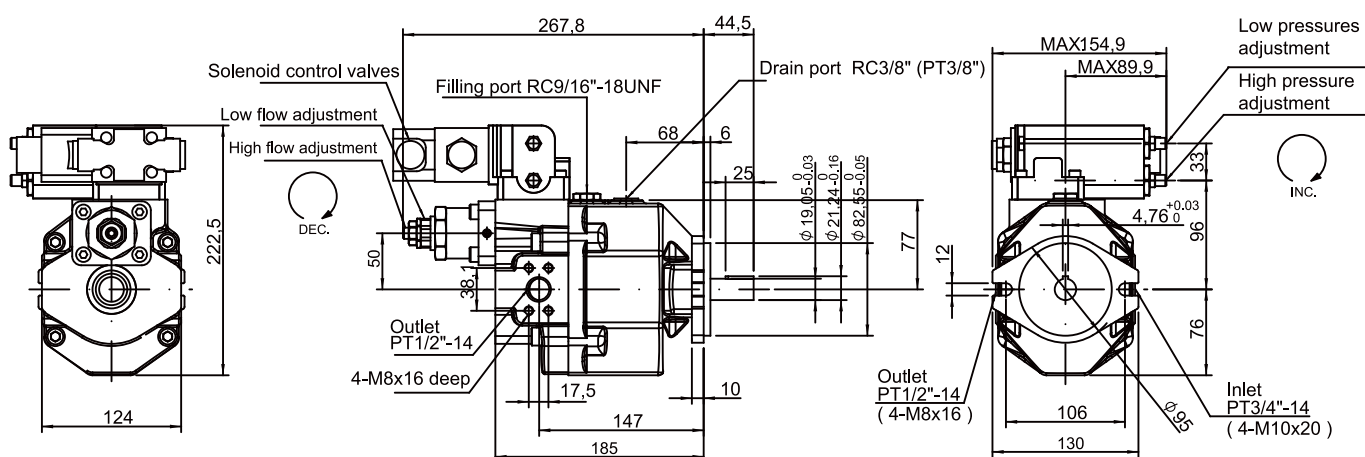


Dimension

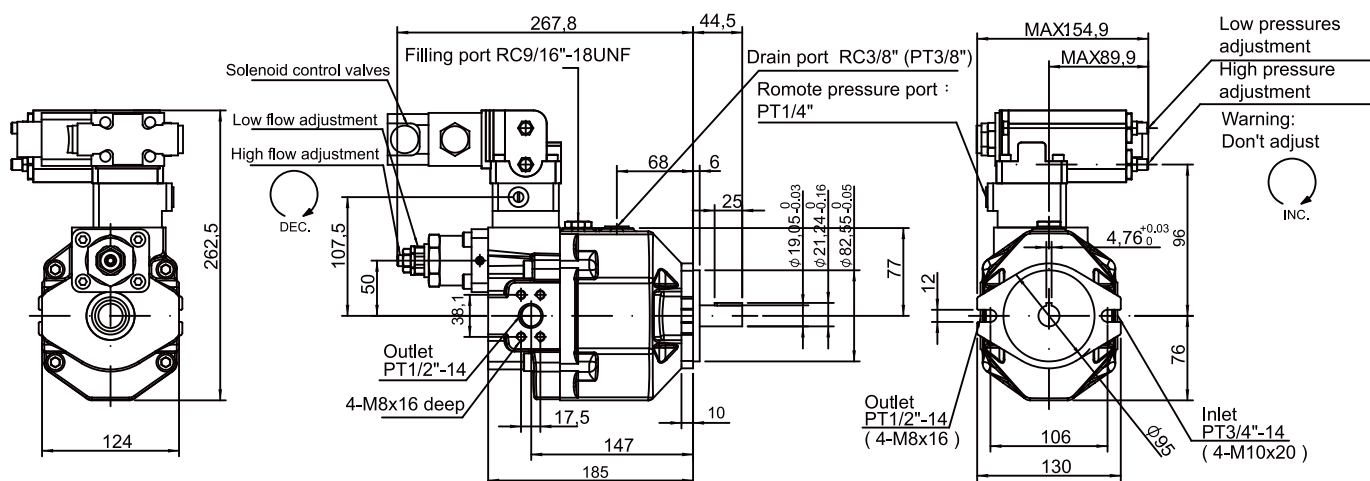
AR16 / 22 EG



AR16 / 22 F

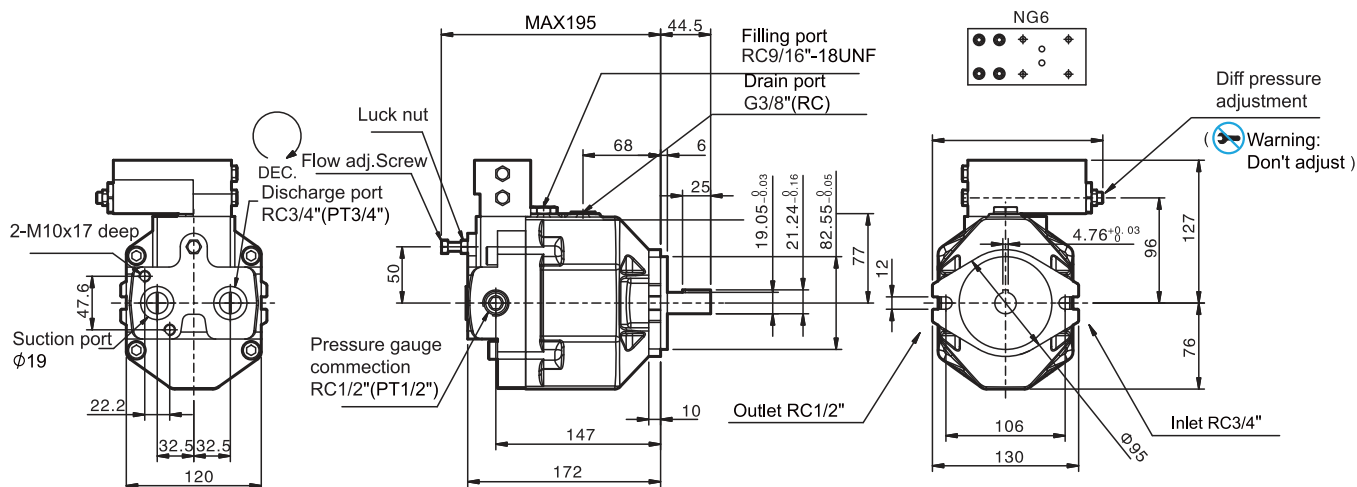


AR16/22 FG

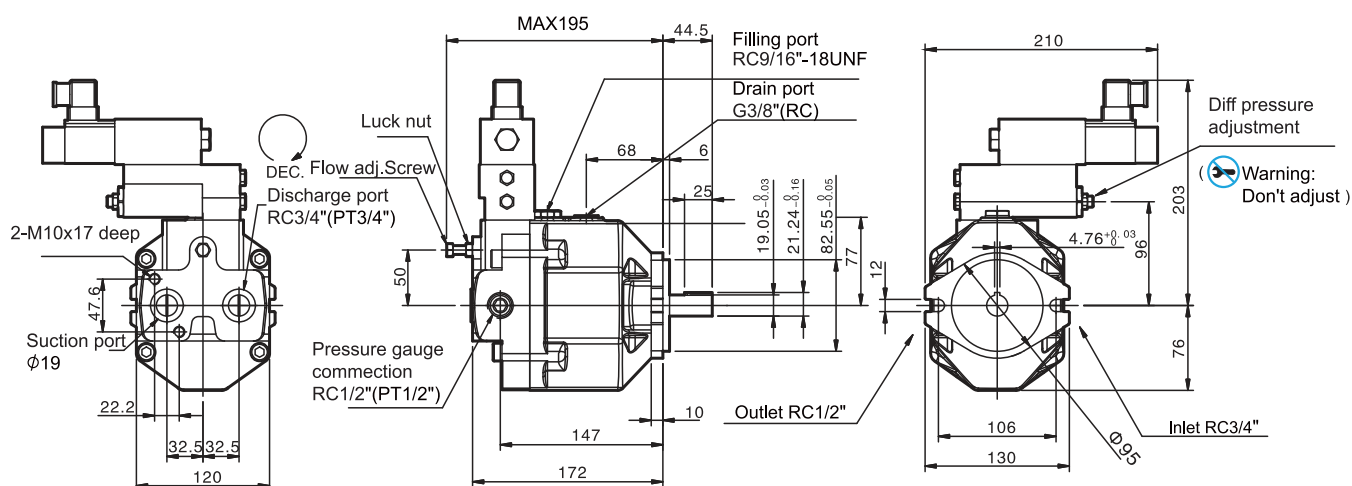


Dimension

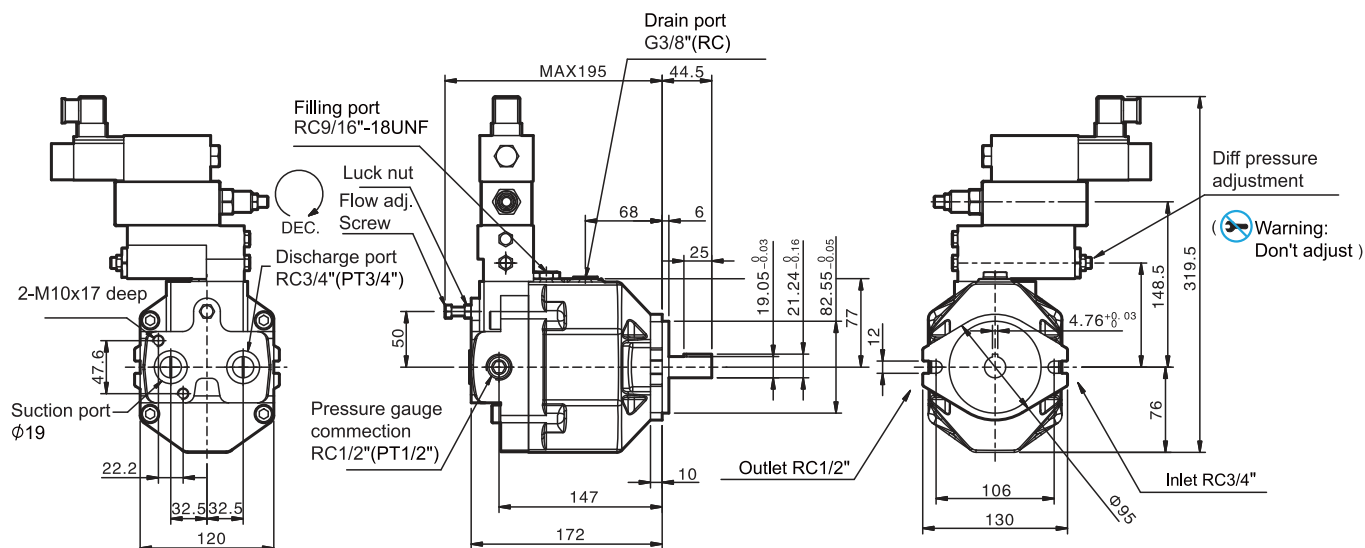
AR16 / 22 GM



AR16 / 22 GJ

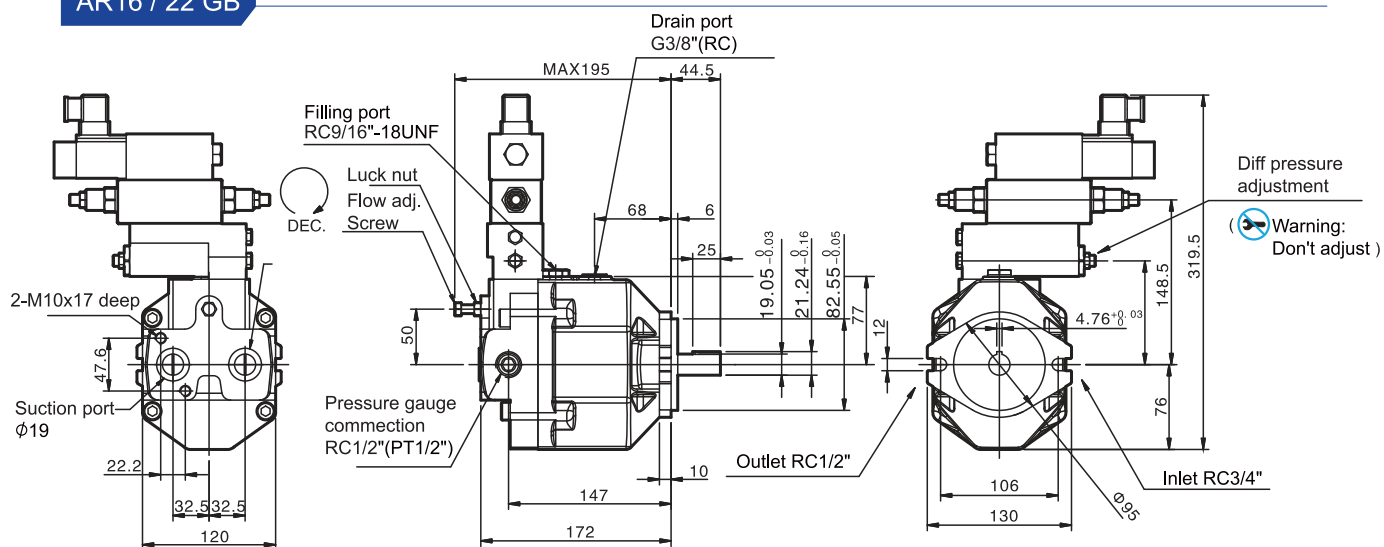


AR16 / 22 GR

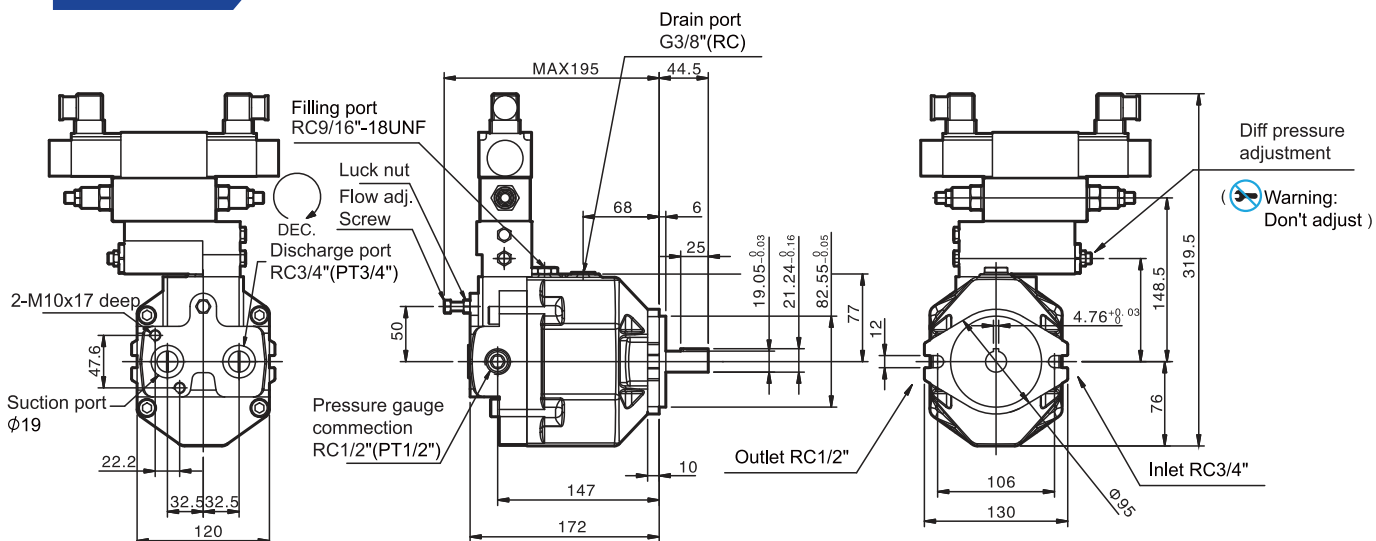


Dimension

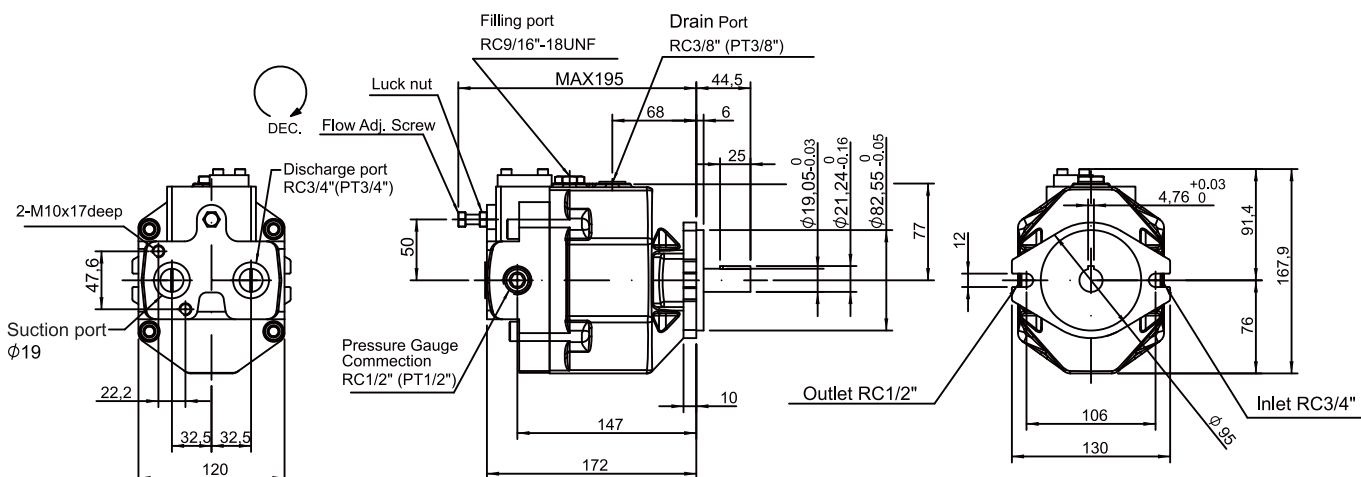
AR16 / 22 GB



AR16 / 22 GC



AR16 / 22 LN



A

AR Axial piston pump

Technical drawing of the 1000 Series Diaphragm Pump showing three views: front, side, and top. The front view shows a hexagonal body with a suction port (φ19) and two discharge ports (RC3/4" PT3/4"). The side view shows the pump's profile with a filling port (RC9/16"-18UNF), a drain port (RC3/8" PT3/8"), a pressure gauge connection (RC1/2" PT1/2"), and a flow adjustment screw. The top view shows the hexagonal base with an outlet (RC 1/2") and an inlet (RC 3/4"). Dimensions include overall width (120), height (114), and various port and body dimensions.

Technical drawing of the 3000 Series 3-Port Solenoid Valve, showing three views: Front View, Side View, and Top View.

Front View Dimensions:

- Overall Width: 120
- Overall Height: 190
- Central Port Diameter: $\phi 82.55^{+0.05}_0$
- Bottom Flange Diameter: 106.3
- Port Specification: 9T DP 16/32

Side View Dimensions:

- Overall Length: 147
- Overall Height: 165.5
- Drain Port Specification: Drain port RC3/8" (PT3/8")
- Filling Port Specification: Filling port RC9/16"-18UNF
- Outlet Specification: Outlet RC 1/2"
- Mounting Hole Specifications: 4-M8x16 deep, 2-M10xP1.5x16deep
- Other Dimensions: 185.5, 44.5, 68, 6, 25, 38.1, 17.5, 10, 77, 12, 96, 114, 76, 106, 130

Top View Dimensions:

- Overall Width: 106
- Overall Depth: 130
- Flow Direction: Flow adj. Screw (INC.)
- Outlet Specification: Outlet RC 1/2" (4 - M8x16)
- Inlet Specification: Inlet RC 3/4" (4 - M10x20)
- Other Dimensions: MAX165.5, MAX100.5, 4.76 $^{+0.03}_0$