

## SMP Series

Internal Gear Pump - Suitable for 2200 rpm  
Displacement: 8~160 cc/rev  
Maximum operating pressure 250 bar  
Single, Double & Triple pump



Index	Page No
• Characteristics	02
• Ordering code	02
• Structure	03
• Performance parameter	03
• 1500 r/min Characteristic curve	04
• 2000 r/min Characteristic curves	05
• 1500 r/min Noise Curve	06
• 2000 r/min Noise Curve	07
• Unit Dimensions For Sizes 8, 10, 13, 16, 20, 25	08
• Unit Dimensions For Sizes 25, 32, 40, 50, 63	09
• Unit Dimensions For Sizes 80, 100, 125, 145, 160	10



Characteristics

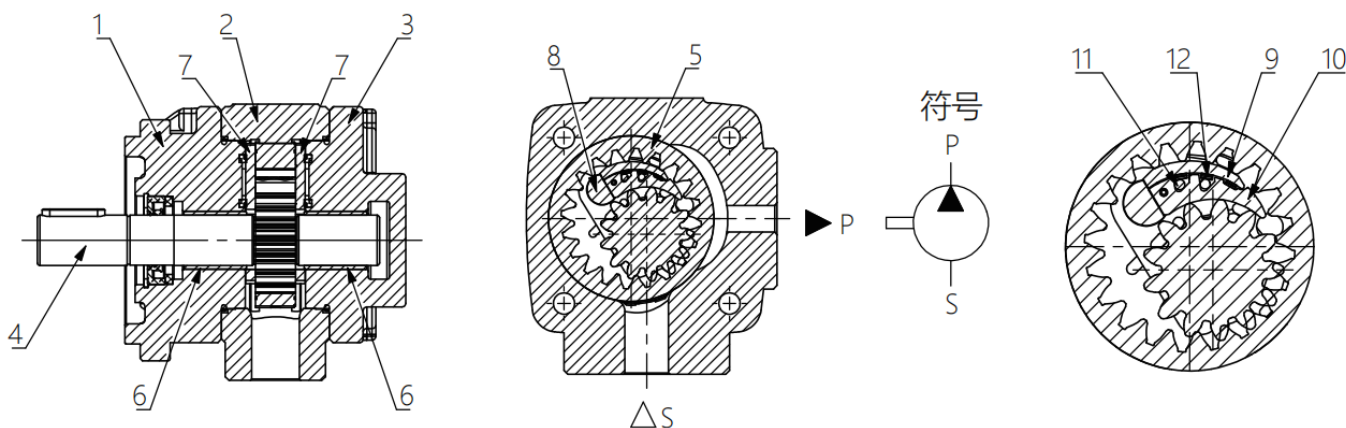
- Axial and radial pressure compensation design is adopted to maintain a high volume ratio even at low speed and low viscosity.
- Ultra low noise. High strength cast iron and unique internal silencing design are adopted to reduce the noise.
- Extremely low flow and pressure pulsation can still maintain stable flow and pressure output at low speed.
- The maximum service pressure can reach 25MPa.
- The speed range is wide, and the maximum speed can reach 2200r/min
- It can be combined to form a duplex pump.
- Insensitive to oil pollution and long service life.
- It can be widely used in industries, such as plastic machines, shoe machines, die-casting machines, forklifts and other industries, It is especially suitable for the energy-saving system of servo variable-frequency drive.

Ordering code

Internal gear pump	= SMP						
Displacement (cc/rev) 8, 10, 13, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 145, 160							
Direction of rotation (Views on shaft) Clockwise Counter-clockwise	= R = L						
Shaft Parallel Splined	= P = S						
Seals FKM Seals NBR Seals	= V = W						
Flange installation form SAE 2 hole mounting flange	= S						
Pressure 250 bar	= P250						



## Structure



Its basic structure consists of:

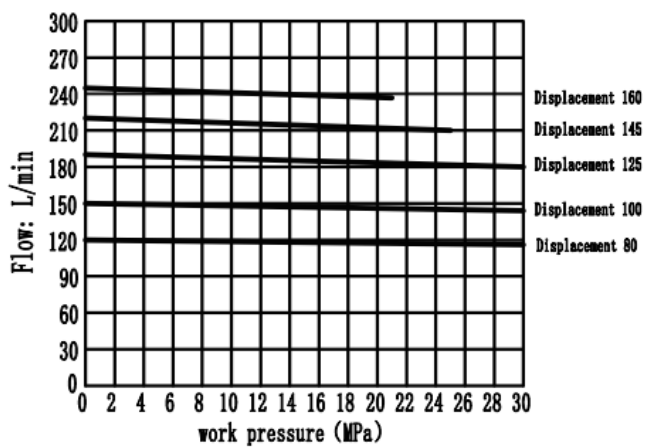
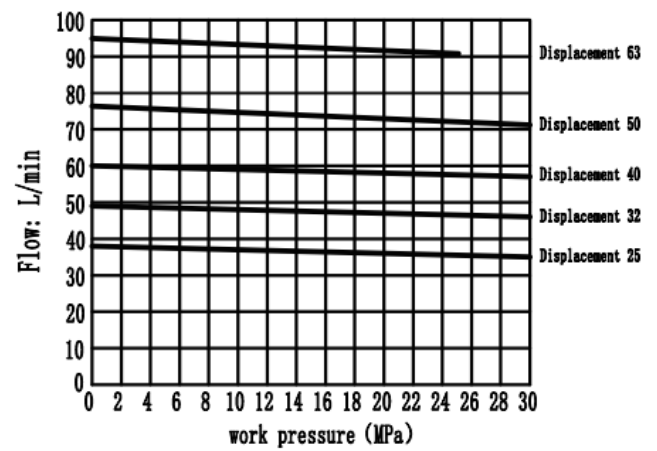
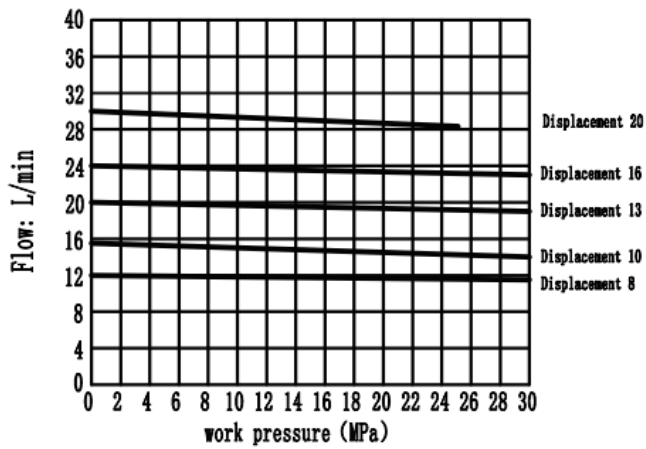
1. front cover; 2. Pump body; 3. Rear cover; 4. Gear shaft; 5. Inner gear ring; 6. Bushing; 7. Front and rear side panels; 8. Positioning rod; 9. Secondary lunar plate; 10. Crescent motherboard; 11. Plastic rod; 12. Spring Plate composition.

## Performance Parameters

MODEL	Size	Displacement	Working pressure (Bar)		Speed (r/min)		Weight (Kg)
			Rated	Peak	Maximum	Minimum	
SMP	8	8.2	250	280	2200	600	4.6
	10	10.2					4.8
	13	13.3					4.9
	16	16					5.2
	20	20					5.6
	25	25.3					6.1
	25	25.3					14.5
	32	32.7					15
	40	40.1					16
	50	50.7					17
	63	63.7					18.5
	63	64.7					42
	80	81.4					43.5
	100	100.2					45.5
	125	125.2					48
	145	145.2					50
	160	162.8					52

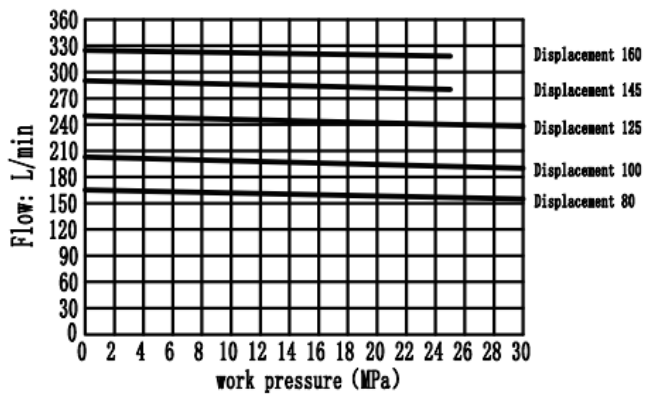
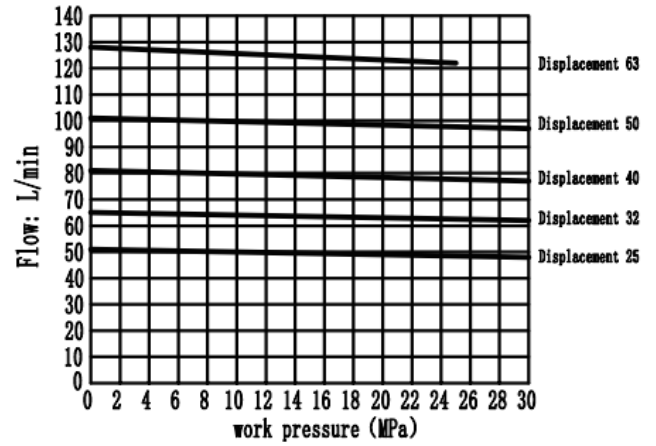
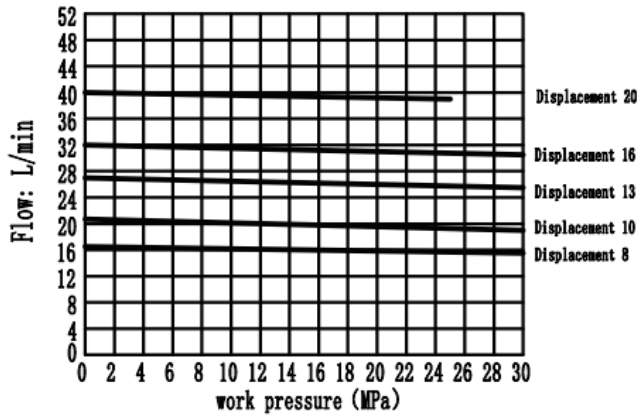


## 1500 r/min Characteristic curves



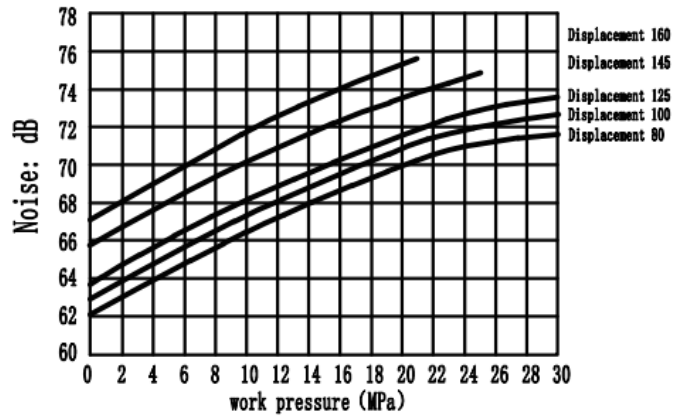
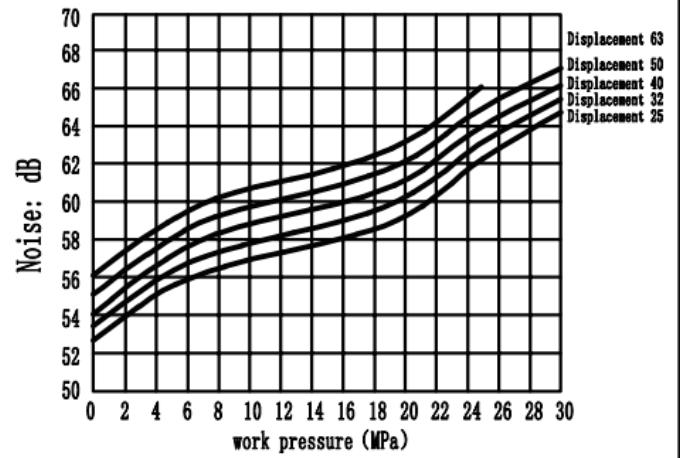
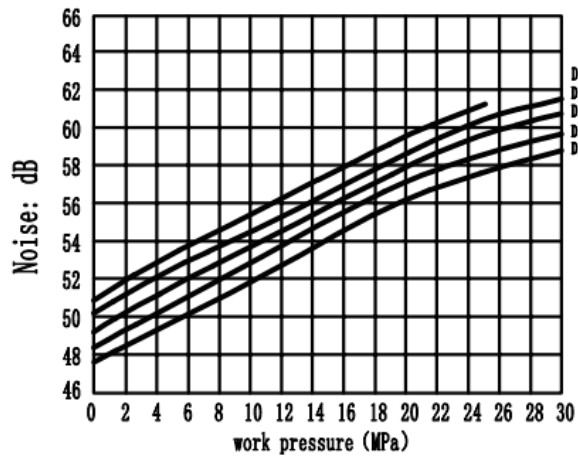


## 2000 r/min Characteristic curves



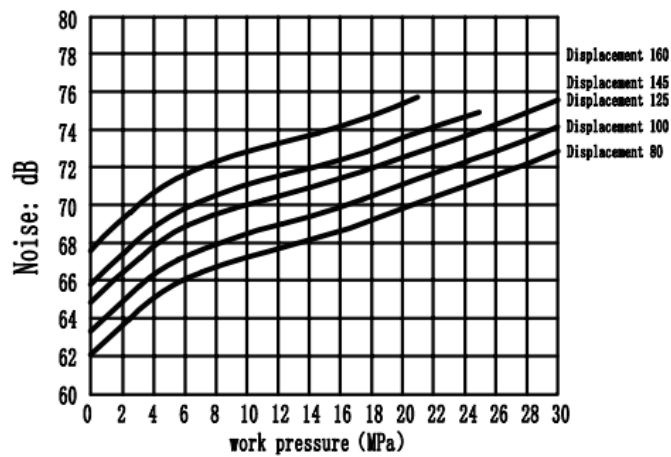
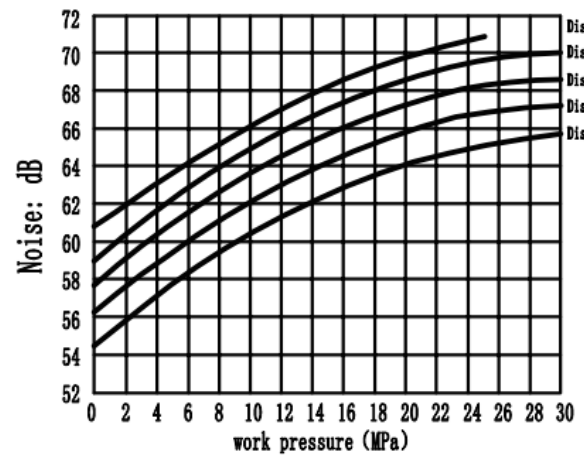
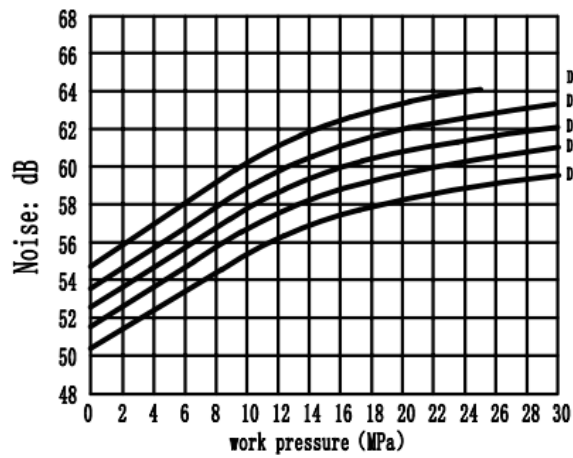


## 1500 r/min Noise Curve





## 2000 r/min Noise Curve

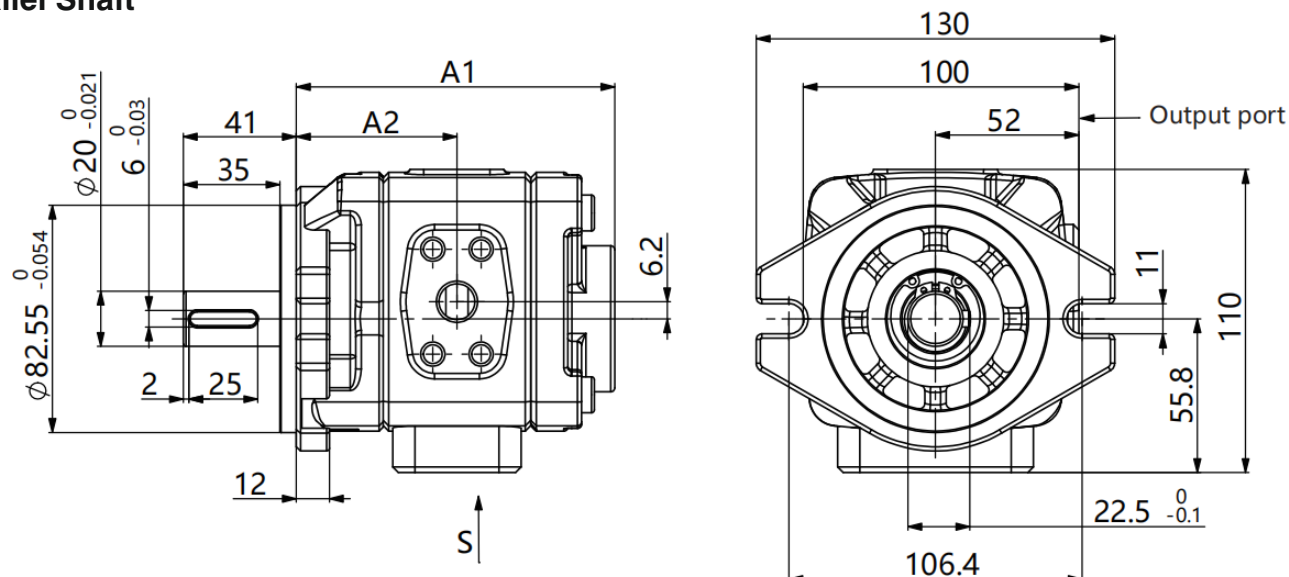




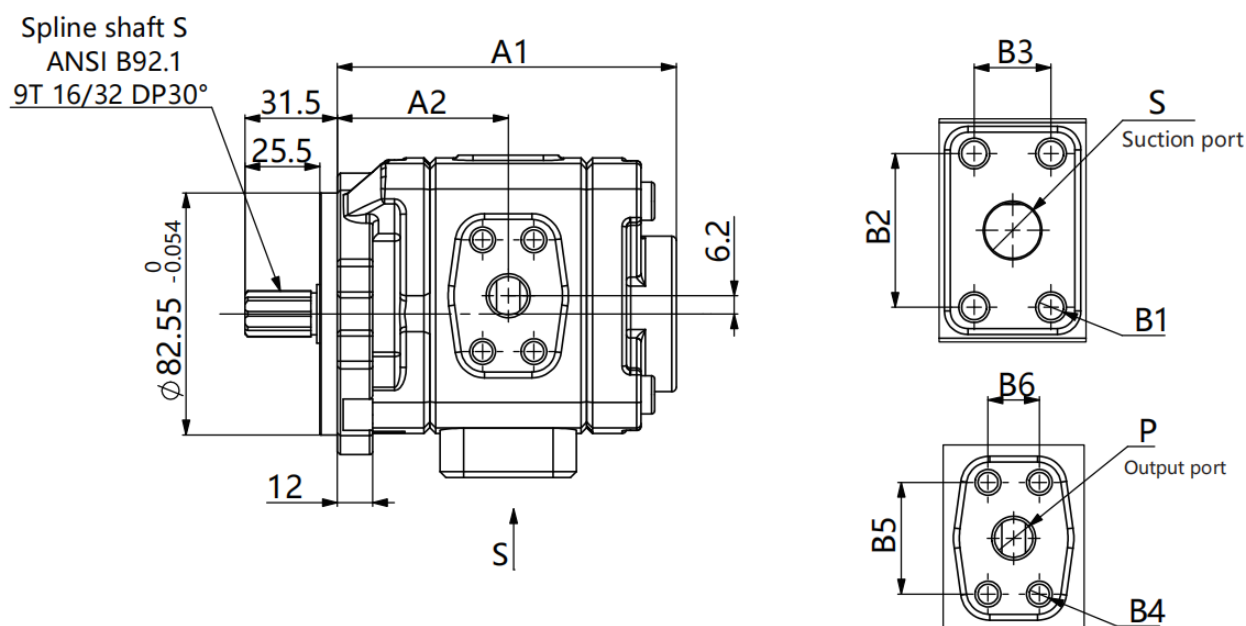
# Unit Dimensions For Sizes 8, 10, 13, 16, 20, 25

(Dimensions in mm)

## Parallel Shaft



## Splined Shaft



series	Specifications	A1	A2	S	B1	B2	B3	P	B4	B5	B6
SMP	8	105	53	φ19	M10D15	47.6	22.2	φ13	M8D13	38.1	17.5
	10	109	55			52.4	26.2				
	13	115.5	58.25								
	16	121	61								
	20	129	65	φ26		58.7	30.2	φ18	M10D13	47.6	22.2
	25	137	69								

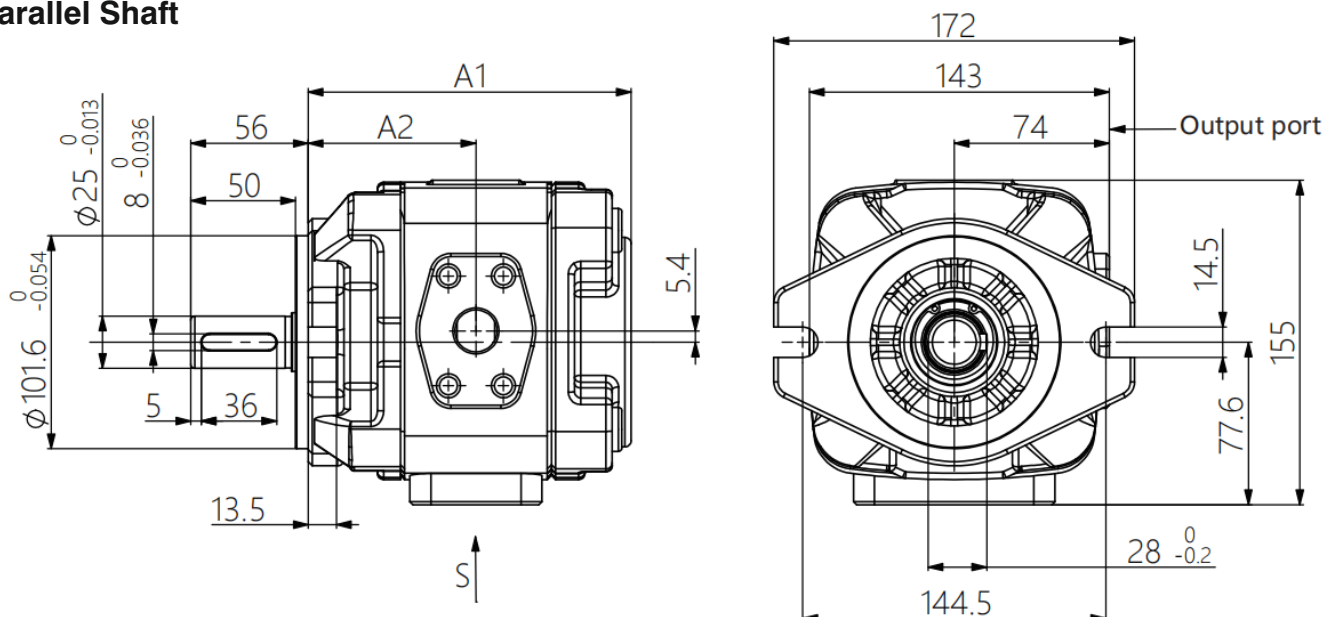




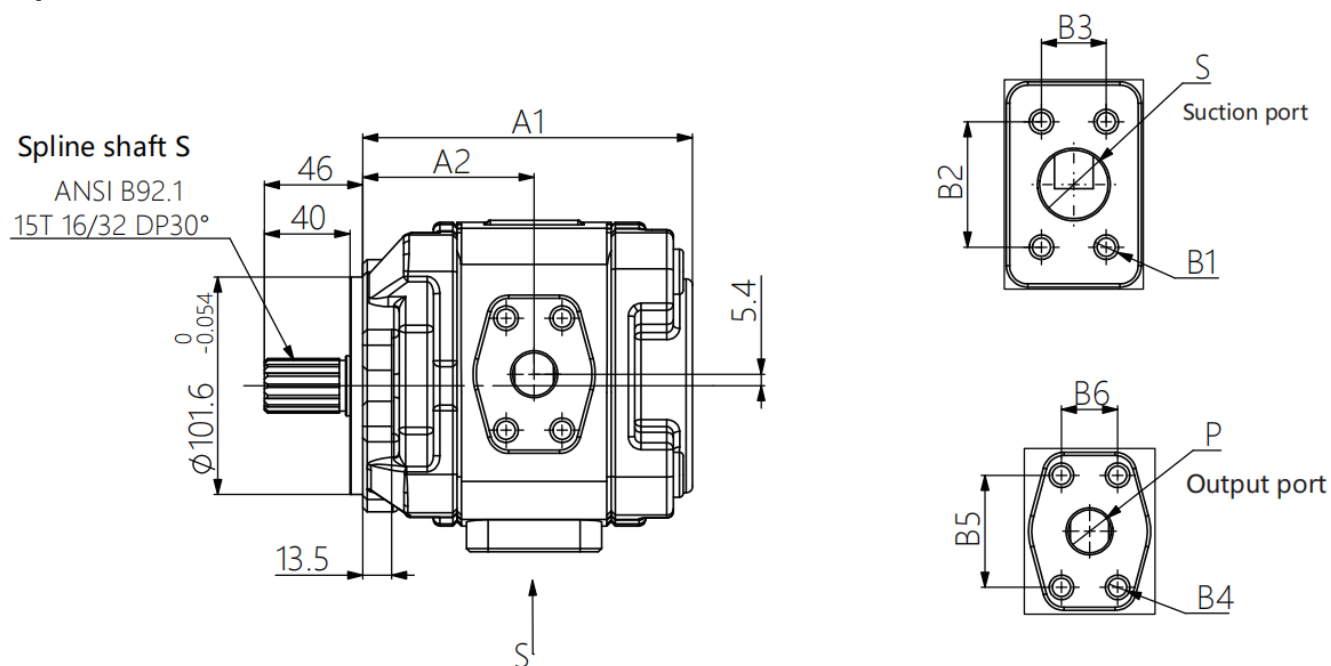
# Unit Dimensions For Sizes 25, 32, 40, 50, 63

(Dimensions in mm)

## Parallel Shaft



## Splined Shaft



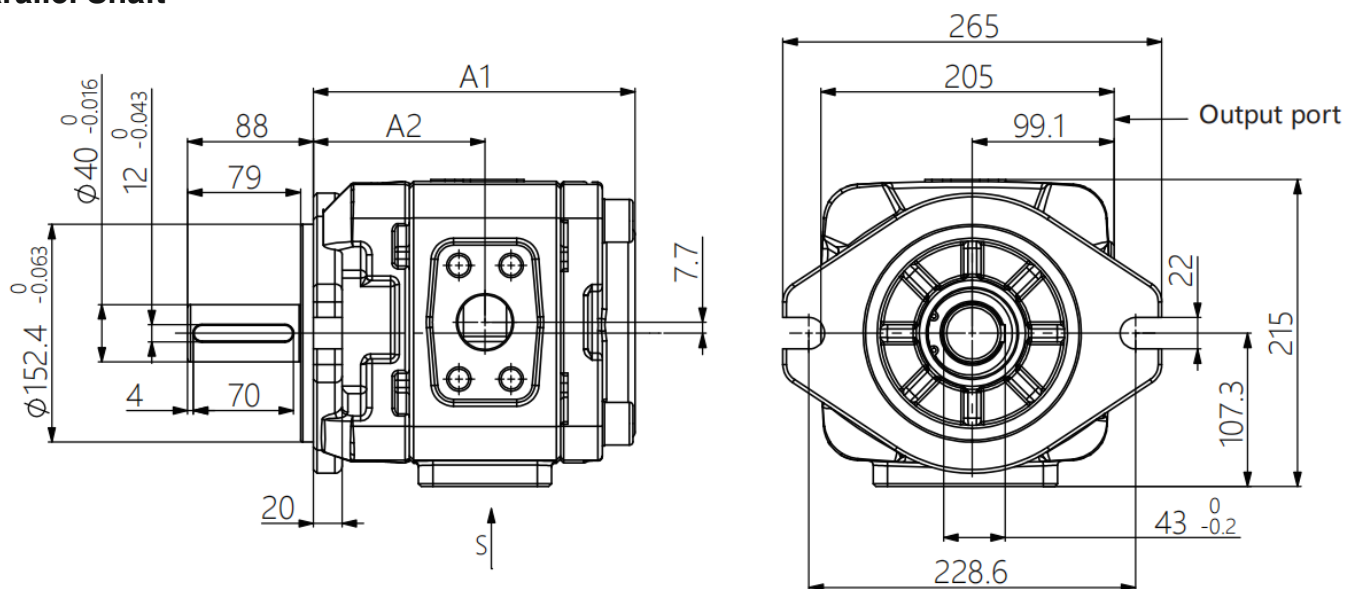
series	spec	A1	A2	S	B1	B2	B3	P	B4	B5	B6	
SMP	25	140	73	φ32	M10D17	58.7	30.2	φ18	M10D17	47.6	22.2	
	32	147	76.5									
	40	154	80					φ20		52.4	26.2	
	50	164	85									
	63	178	92									



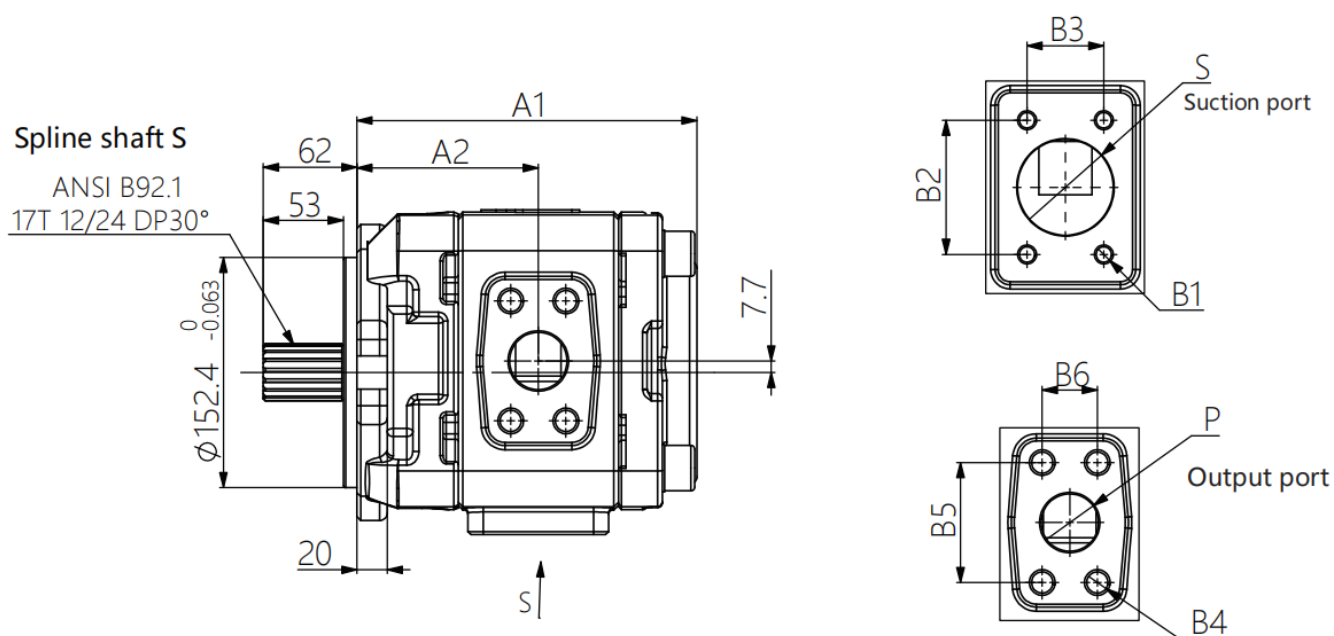
# Unit Dimensions For Sizes 80, 100, 125, 145, 160

(Dimensions in mm)

## Parallel Shaft



## Splined Shaft



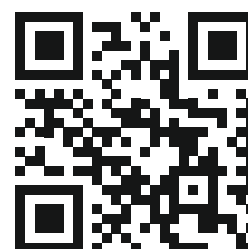
series	spec	A1	A2	S	B1	B2	B3	P	B4	B5	B6
SMP	80	204	109.5	φ51	M12D23	77.8	42.9	φ32	M12D20	69.9	35.7
	100	213	114								
	125	225	120	φ63.5		88.9	50.8	φ38	M16D25	79.4	36.5
	145	234.5	124.75								
	160	243	129	φ76	M16D30	106.4	61.9				

The specified data is for product description purposes only and may not be deemed to be guaranteed unless expressly confirmed in the contract.



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