



**SAP 012-108 SAE is a series of light weight casing piston pumps with a fixed displacement for demanding mobile hydraulics.**

SAP 012-108 SAE covers the displacement range 12-108 cm<sup>3</sup>/rev. at a maximum pressure up to 400 bar. It is a modern, compact pump which meets the market's high demands on flow performance, pressure, efficiency and small installation dimensions. The pump is either mounted directly on the power take-off or on a frame bracket via an intermediate shaft.

**Other advantages:**

- Light weight metal casing design
- Smooth operation over the entire speed range
- Long life due to high demands on material selection, such as bearings, seals, etc
- Corrosion free light metal-housing
- Less heat generation due to better ability to dissipate heat through housing

## Versions, main data

Example

|      |   |   |     |   |   |   |   |     |   |     |   |    |   |   |   |    |
|------|---|---|-----|---|---|---|---|-----|---|-----|---|----|---|---|---|----|
| SA   | P | - | 064 | L | - | N | - | SB4 | - | B13 | - | S0 | S | - | 0 | 00 |
| Line | 1 |   | 2   | 3 |   | 4 |   | 5   |   | 6   |   | 7  | 8 |   | 9 | 10 |

|      |    |                  |
|------|----|------------------|
| Line | SA | Sunfab Aluminium |
|------|----|------------------|

|         |   |      |
|---------|---|------|
| 1. Type | P | Pump |
|---------|---|------|

|                 |     |     |     |     |     |     |     |     |     |     |
|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 2. Displacement | 012 | 017 | 025 | 034 | 040 | 047 | 056 | 064 | 084 | 108 |
|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

|                          |   |       |
|--------------------------|---|-------|
| 3. Direction of rotation | R | Right |
|                          | L | Left  |

|               |    |         |
|---------------|----|---------|
| 4. Shaft seal | N  | Nitrile |
|               | V* | HNBR    |

\*Can withstand higher temperature, e.g. on engine PTO. Not available for 012-034.

|                    |        |     |     |     |     |     |     |     |     |     |     |
|--------------------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 5. Mounting flange |        | 012 | 017 | 025 | 034 | 040 | 047 | 056 | 064 | 084 | 108 |
| SB4                | SAE B4 | X   | X   | X   | X   | X   | X   | X   | X   | -   | -   |
| SC4                | SAE C4 | -   | -   | -   | -   | X   | X   | X   | X   | X*  | X*  |

\*SAP 084 &amp; 108 with adapter flange for SC4.

|          |           |     |     |     |     |     |     |     |     |     |     |
|----------|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 6. Shaft |           | 012 | 017 | 025 | 034 | 040 | 047 | 056 | 064 | 084 | 108 |
| B13*     | SAE B 13t | X   | X   | X   | X   | X   | X   | X   | X   | -   | -   |
| C14      | SAE C 14t | -   | -   | -   | -   | X   | X   | X   | X   | X   | X   |

\*Only with SB4 mounting flange

- = Not available  
X = Standard, preferred

|                     |    |                     |
|---------------------|----|---------------------|
| 7. Connection cover | S0 | 40° Sunfab standard |
|---------------------|----|---------------------|

|                |   |                 |
|----------------|---|-----------------|
| 8. Connections | S | Sunfab standard |
|----------------|---|-----------------|

|               |   |   |
|---------------|---|---|
| 9. Additional | 0 | - |
|---------------|---|---|

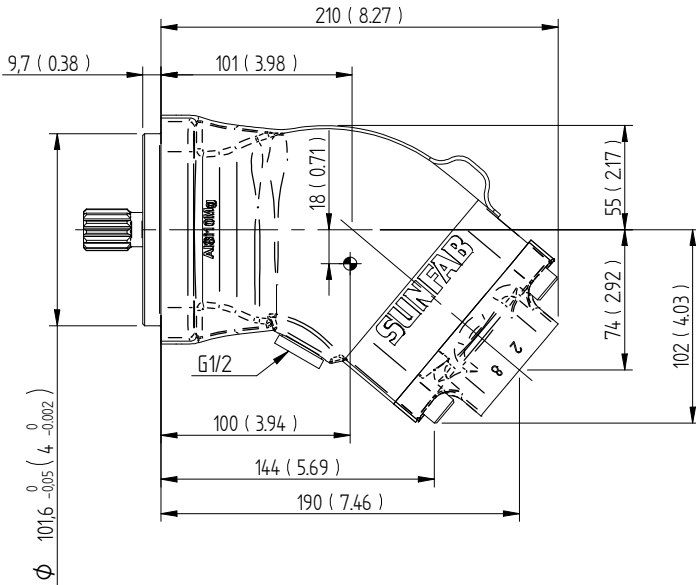
|                 |    |                          |
|-----------------|----|--------------------------|
| 10. Accessories | 00 | No accessories available |
|-----------------|----|--------------------------|

| SAP 012-108 SAE                                 | 012<br>SAE B | 017<br>SAE B | 025<br>SAE B | 034<br>SAE B | 040<br>SAE B | 040<br>SAE C | 047<br>SAE B | 047<br>SAE C | 056<br>SAE B | 056<br>SAE C | 064<br>SAE B | 064<br>SAE C | 084<br>SAE C | 108<br>SAE C |       |
|---|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------|
| <b>Theoretical oil flow l/min at pump speed</b> |              |              |              |              |              |              |              |              |              |              |              |              |              |              |       |
| rpm   | 500          | 6            | 9            | 13           | 17           | 21           | 21           | 24           | 24           | 28           | 28           | 32           | 32           | 42           | 54    |
|   | 1000         | 13           | 17           | 25           | 34           | 41           | 41           | 47           | 47           | 57           | 57           | 64           | 64           | 84           | 108   |
|   | 1500         | 19           | 26           | 38           | 51           | 62           | 62           | 71           | 71           | 85           | 85           | 95           | 95           | 125          | 162   |
| <b>Displacement</b>                             |              |              |              |              |              |              |              |              |              |              |              |              |              |              |       |
| cm <sup>3</sup> /rev                            |              | 12.6         | 17.0         | 25.4         | 34.2         | 41.2         | 41.2         | 47.1         | 47.1         | 56.7         | 56.7         | 63.6         | 63.6         | 83.6         | 108.0 |
| <b>Max pump speed</b>                           |              |              |              |              |              |              |              |              |              |              |              |              |              |              |       |
| <i>continuous</i>                               | rpm          | 2300         | 2300         | 2300         | 2300         | 1900         | 1900         | 1900         | 1900         | 1900         | 1900         | 1900         | 1900         | 1600         | 1600  |
| <i>intermittent</i>                             |              | 3000         | 3000         | 3000         | 3000         | 2500         | 2500         | 2500         | 2500         | 2500         | 2500         | 2500         | 2500         | 2100         | 2100  |
| <b>Max working pressure</b>                     |              |              |              |              |              |              |              |              |              |              |              |              |              |              |       |
| bar   |              | 400          | 400          | 400          | 400          | 400          | 400          | 400          | 400          | 400          | 400          | 350          | 400          | 400          | 400   |
| <b>Weight</b>                                   |              |              |              |              |              |              |              |              |              |              |              |              |              |              |       |
| kg  |              | 7.3          | 7.3          | 7.5          | 7.4          | 9.7          | 10.4         | 9.7          | 10.4         | 9.2          | 9.9          | 9.6          | 10.3         | 16.2         | 15.9  |
| <b>Tare-weight torque (M)</b>                   |              |              |              |              |              |              |              |              |              |              |              |              |              |              |       |
| Nm  |              | 7.2          | 7.2          | 7.4          | 7.3          | 10.2         | 10.9         | 10.2         | 10.9         | 9.7          | 10.4         | 10.1         | 10.8         | 22.3         | 21.9  |
| <b>Direction of rotation</b>                    |              |              |              |              |              |              |              |              |              |              |              |              |              |              |       |
| Left (L) or Right (R)                           |              |              |              |              |              |              |              |              |              |              |              |              |              |              |       |

# Dimensions SAP 012-034 SAE

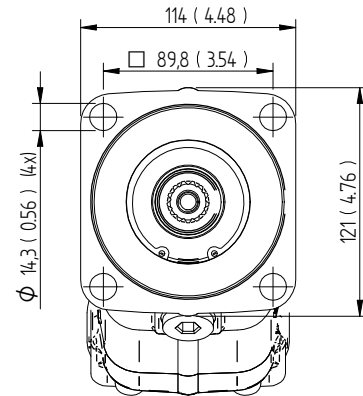
Millimeter (inch)

## SB4 SAE J744

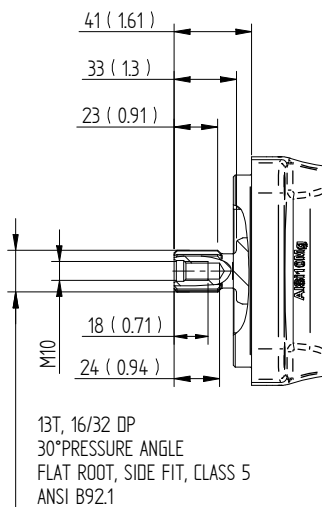


$\oplus$  Center of gravity

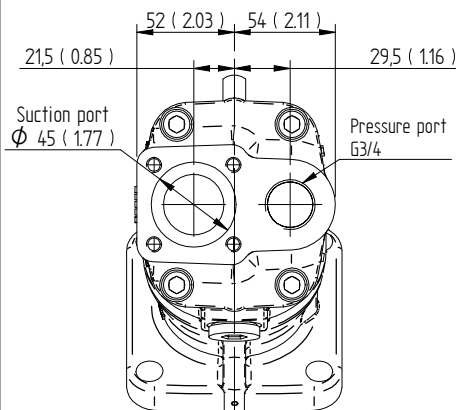
## SB4 SAE J744, ID. CODE: 101-4 (B)



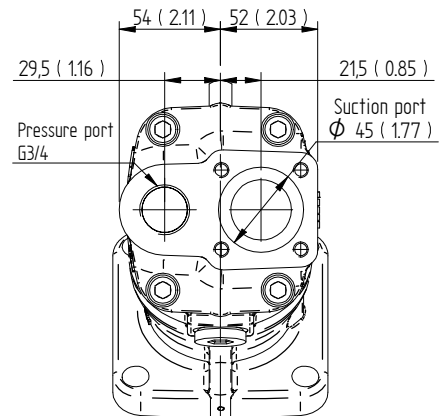
## B13 SAE J744, ID. CODE: 22-4 (B)



## S0S LEFT ROTATION (L)



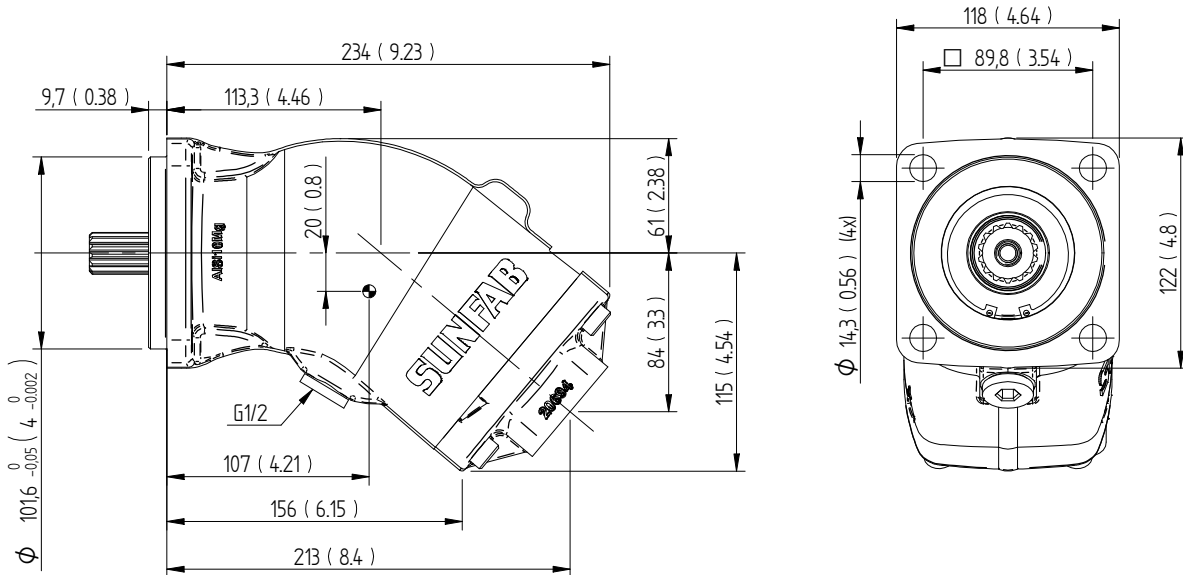
## S0S RIGHT ROTATION (R)



## Dimensions SAP 040-064 SAE

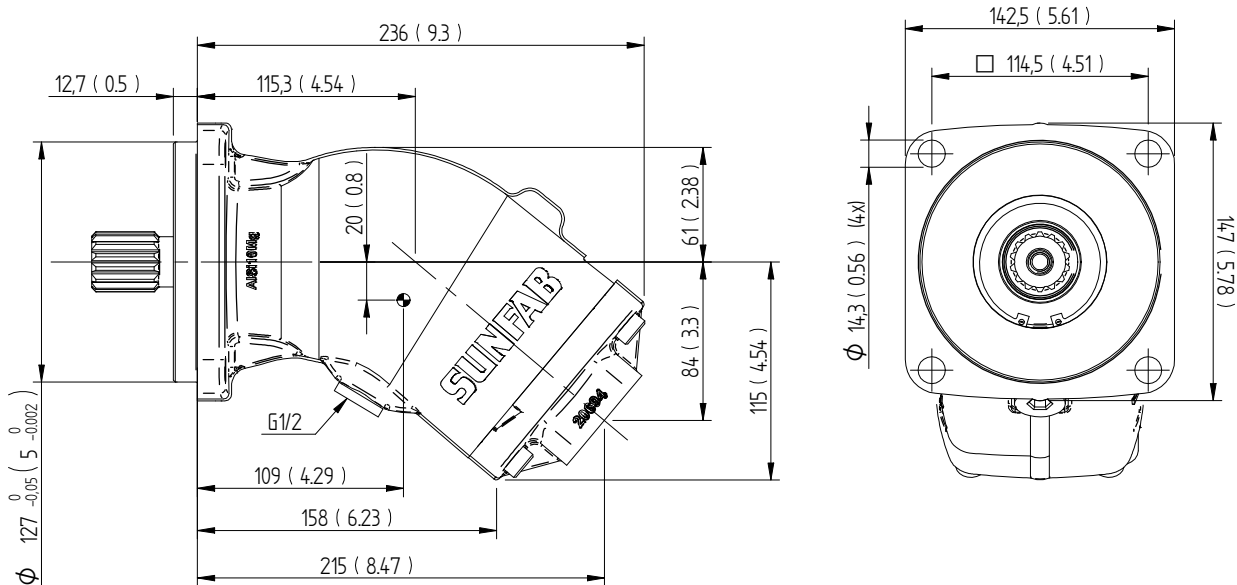
Millimeter (inch)

### SB4 SAE J744, ID. CODE: 101-4 (B)



Center of gravity

### SC4 SAE J744, ID. CODE: 127-4 (C)



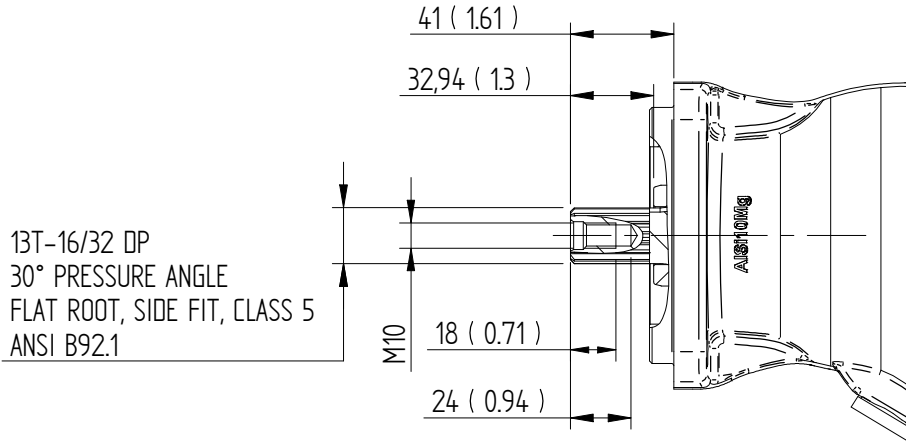
Center of gravity

# Dimensions SAP 040-064 SAE

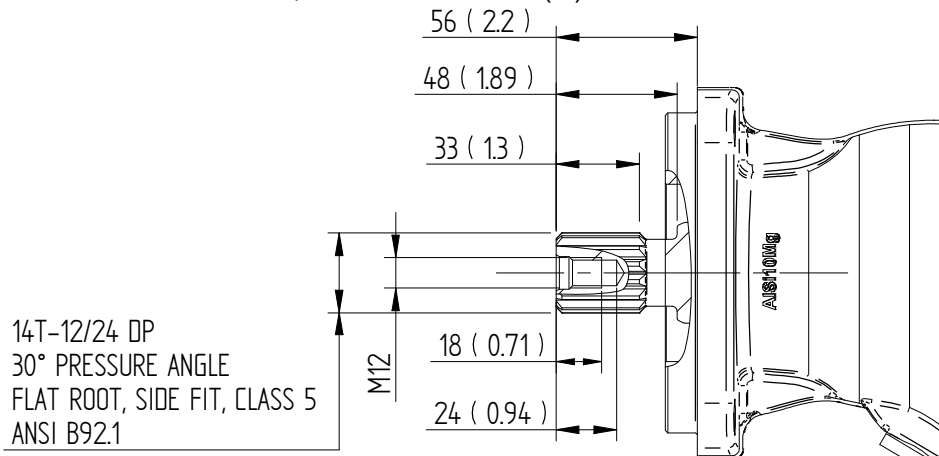
## Flange & Connection cover

Millimeter (inch)

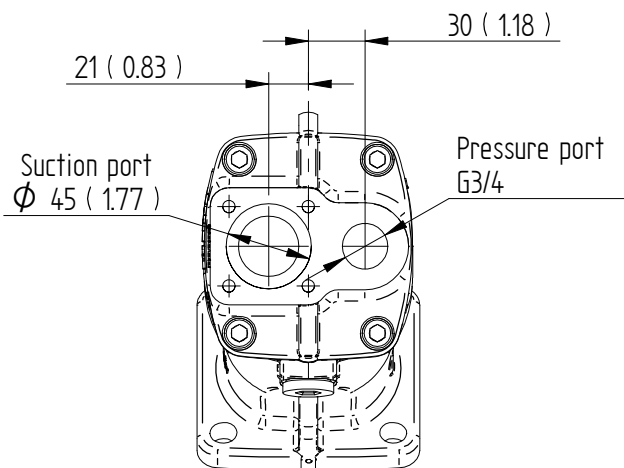
### SB4 B13 SAE J744, ID. CODE: 22-4 (B)



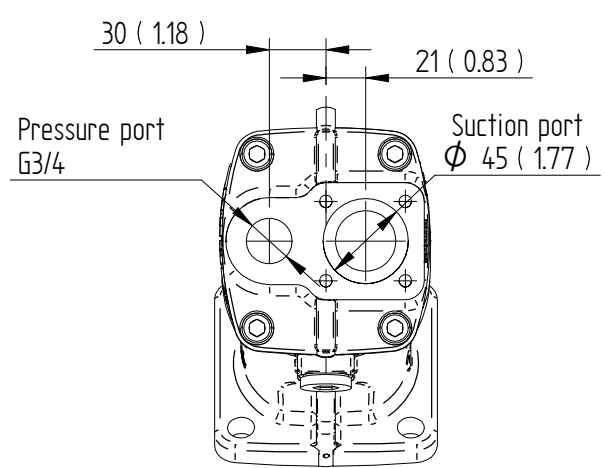
### SC4 C14 SAE J744, ID. CODE: 32-4 (C)



### S0S LEFT ROTATION (L)

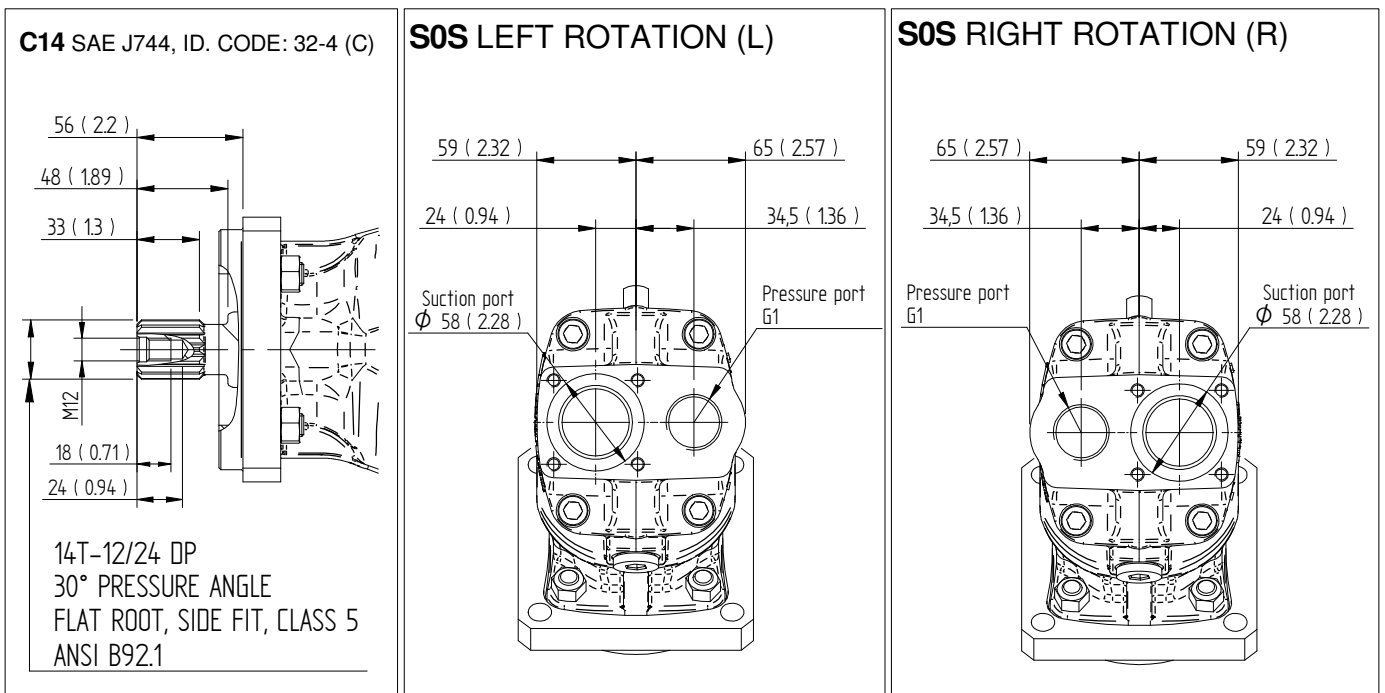
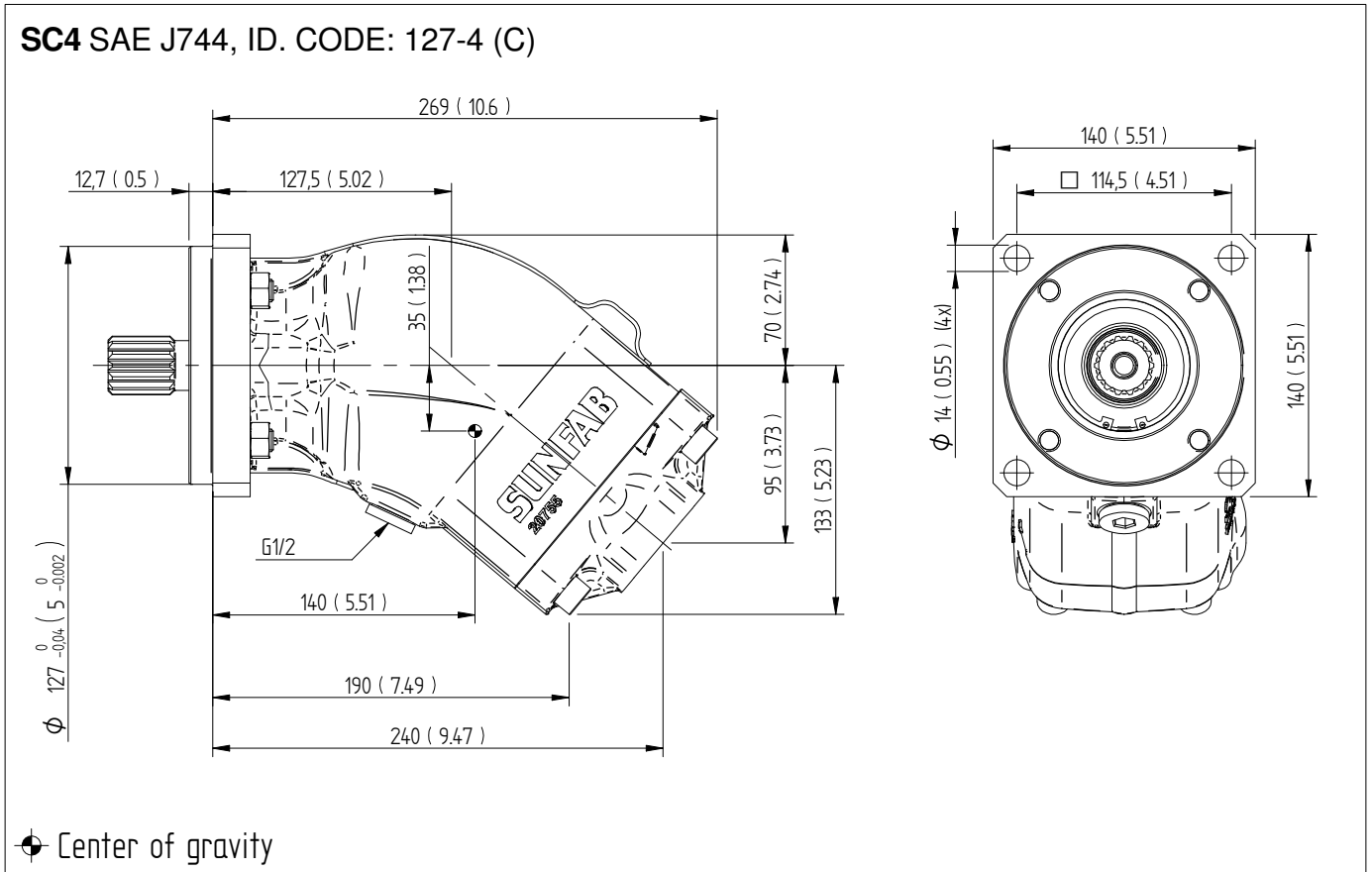


### S0S RIGHT ROTATION (R)



# Dimensions SAP 084-108 SAE

Millimeter (inch)





**WARNING!**

When the pump is running:

1. Do not touch the pressure hose
2. Watch out for rotating parts
3. The pump and hoses may be hot

Sunfab reserves the right to make changes in design and dimensions without notice. Printing and typesetting errors reserved.

© Copyright 2023 Sunfab Hydraulics AB. All Rights Reserved.