



**SAP DIN Optimised is a series of light weight casing piston pumps with a fixed displacement for demanding mobile hydraulics. It is variant of the standard SAP series, also suitable for electric motor drives due to the pump's higher speed properties and lower noise level.**

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

The optimised option gives a more silent operation with higher pump speeds. It is a speed-optimised pump and therefore supplied for either left (L) or right (R) rotation direction.

#### **Other advantages:**

- Less noise than the standard SAP series
- Less pulsations in the system
- 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	-	084	L	-	N	-	DL4	-	L35	-	S0	S	-	2	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	
DL4	DIN 4-h (ISO 7653D)

6. Shaft	
L35	DIN 5462 / ISO 14
H35	DIN 5462 / ISO 14 Ø 8.15

7. Connection cover	
S0	40° Sunfab standard

8. Connections	
S	Sunfab standard

9. Additional	
2	Optimised
3	Optimised + External drainage*

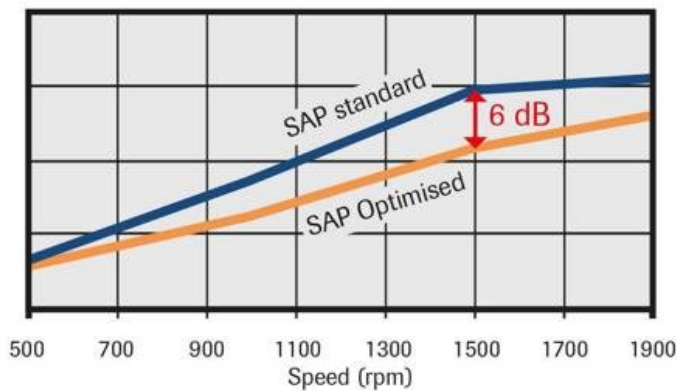
\*Only available for 084 & 108. See separate brochure "Injector" for more information.

10. Accessories	
00	No accessories available

SAP 012-108 DIN Optimised		012	017	025	034	040	047	056	064	084	108
<b>Theoretical oil flow l/min at pump speed</b>											
rpm	500	6	9	13	17	21	24	28	32	42	54
	1000	13	17	25	34	41	47	57	64	84	108
	1500	19	26	38	51	62	71	85	95	125	162
<b>Displacement</b>											
cm <sup>3</sup> /rev		12.6	17.0	25.4	34.2	41.2	47.1	56.7	63.6	83.6	108.0
<b>Max pump speed</b>											
<i>continuous</i>	rpm	3000	3000	2500	2500	2000	2000	2000	2000	1800	1800
<i>intermittent</i>		3500	3500	3200	3200	2600	2600	2600	2600	2300	2300
<b>Max working pressure</b>											
bar		400	400	400	400	400	400	400	400	400	400
<b>Weight</b>											
kg		6.9	6.9	7.1	7.1	9.8	9.8	9.8	9.8	13.9	13.9
<b>Tare-weight torque (M)</b>											
Nm		6.7	6.7	7.0	7.0	11.5	11.5	11.5	11.5	18.5	18.5
<b>Direction of rotation</b>											
Left (L) or Right (R)											

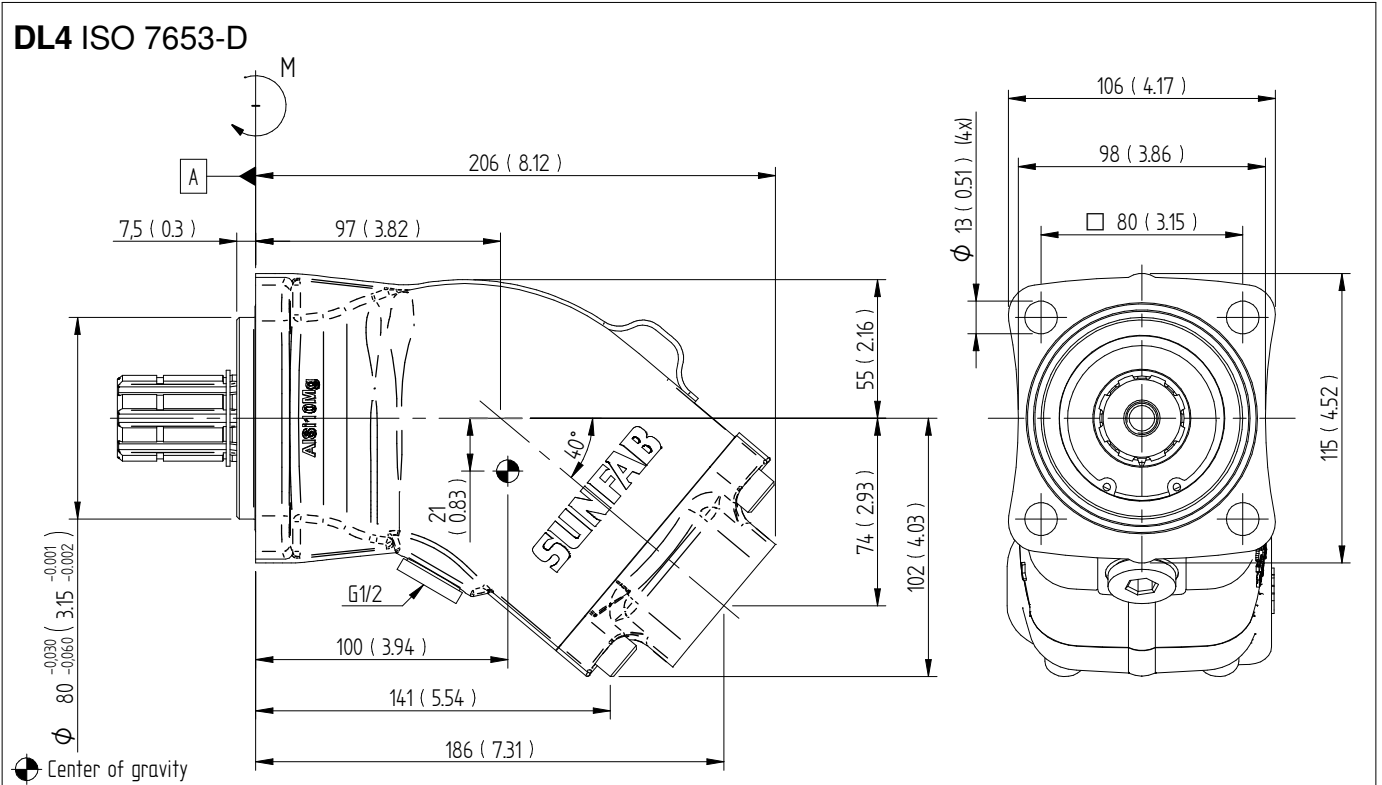
**Noise levels compared to SAP standard pump**

Measured at 200 bar

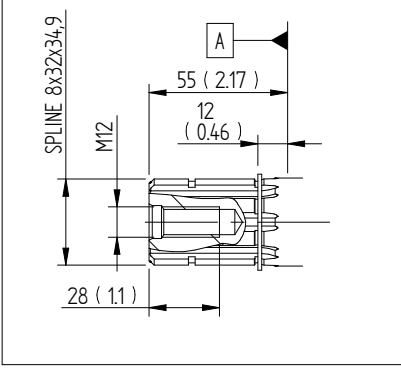


# Dimensions SAP 012-034 DIN

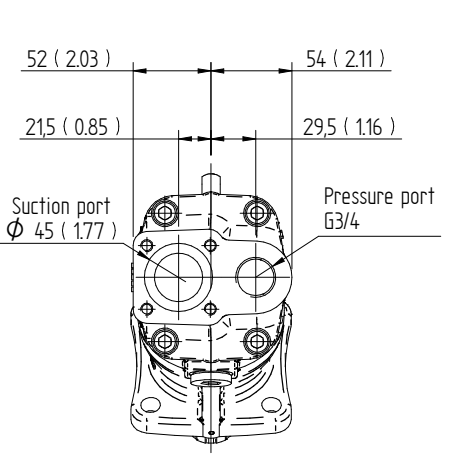
Millimeter (inch)



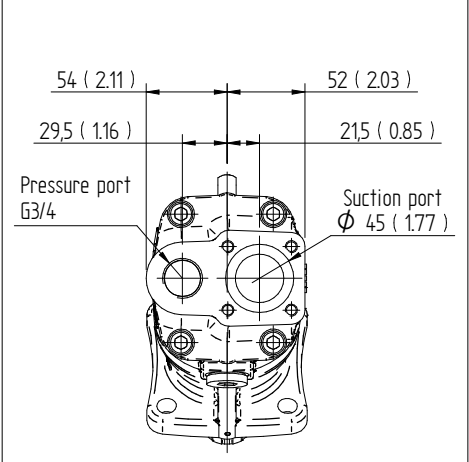
**L35 DIN 5462 / ISO 14**



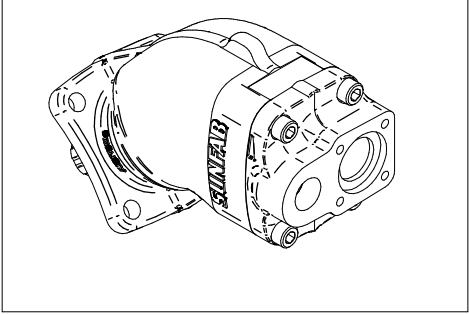
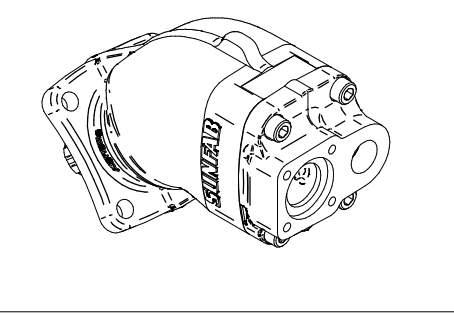
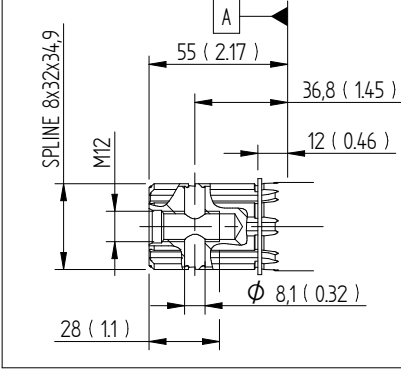
**S0S Left rotation (L)**



**S0S Right rotation (R)**

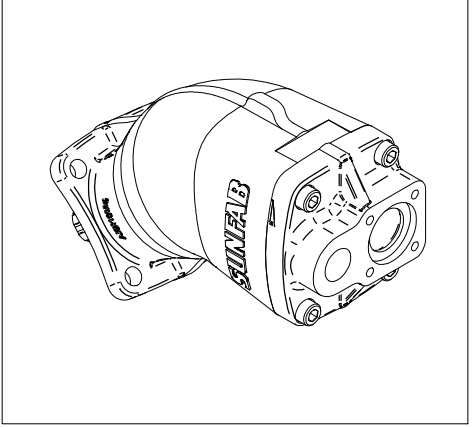
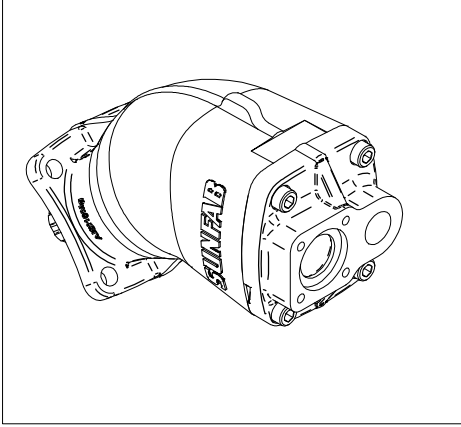
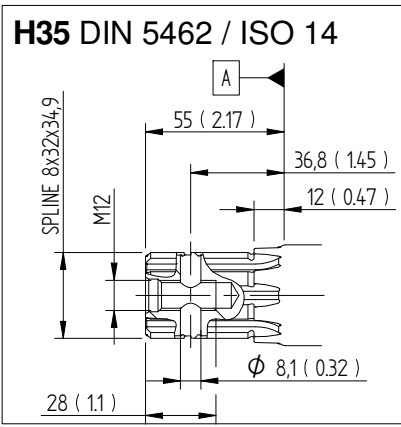
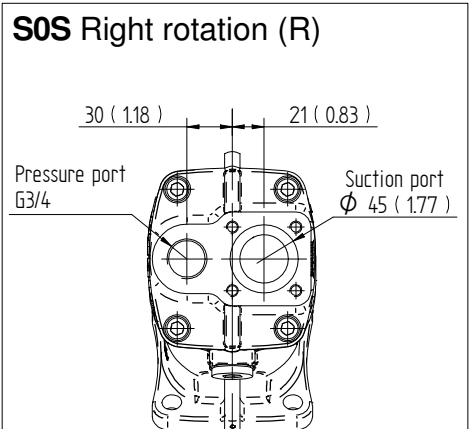
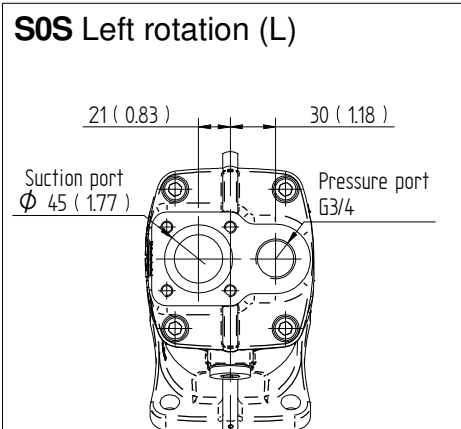
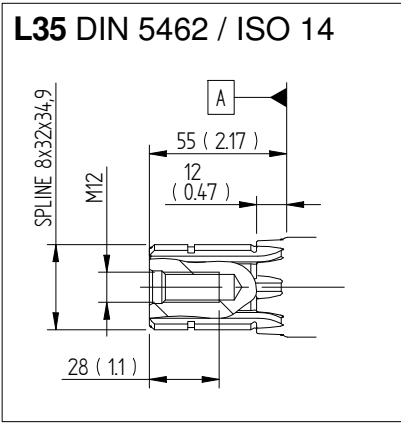
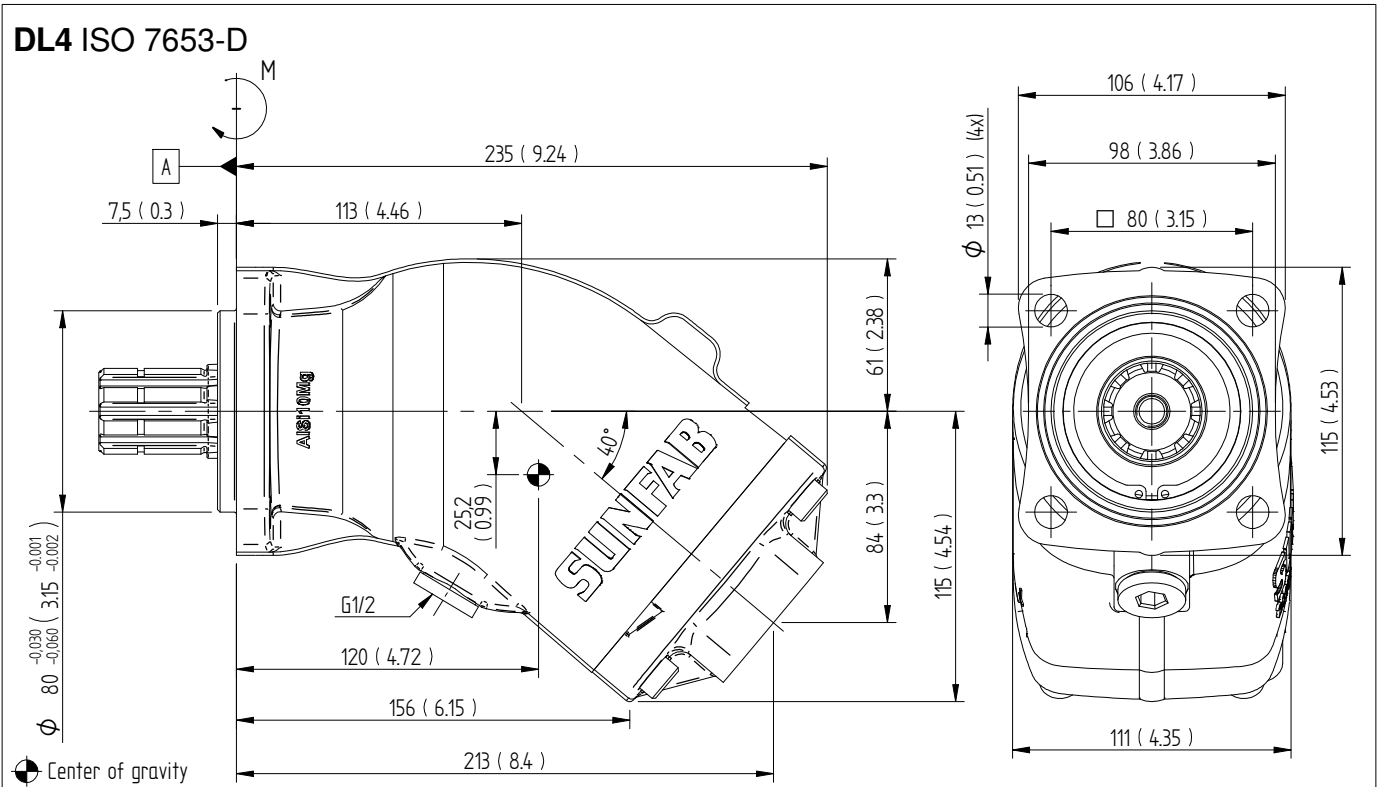


**H35 DIN 5462 / ISO 14**



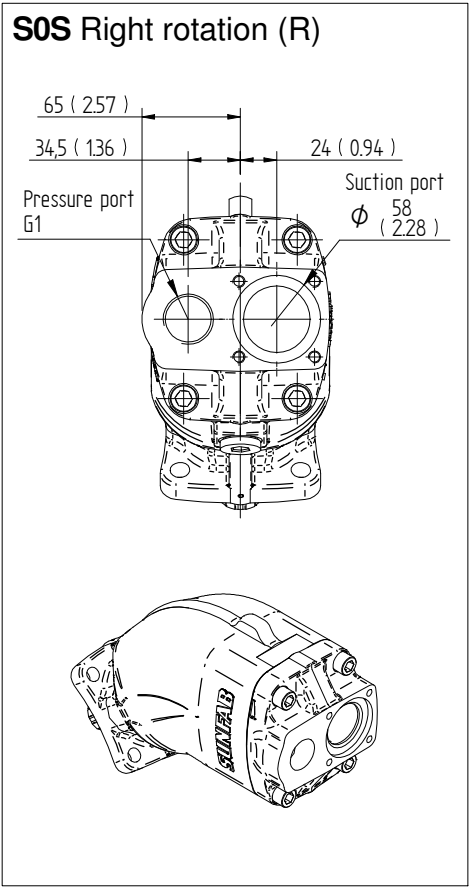
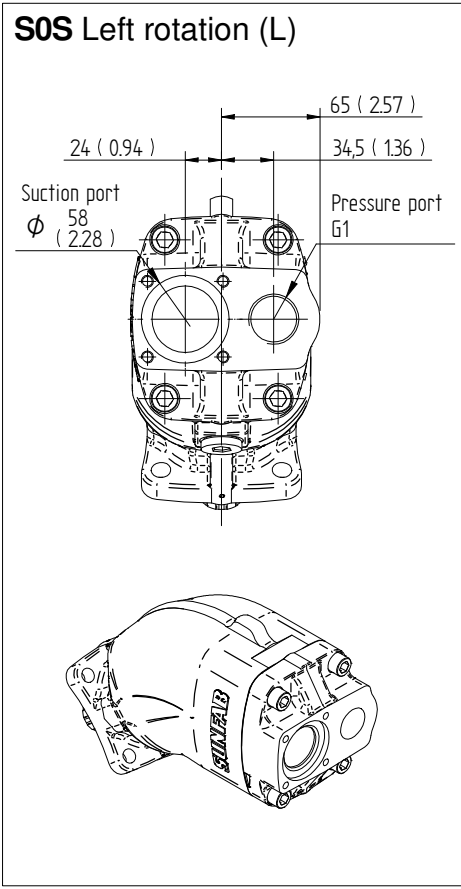
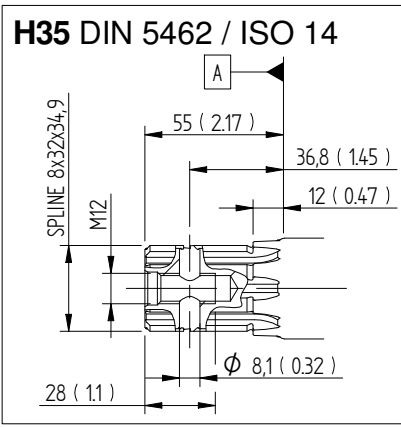
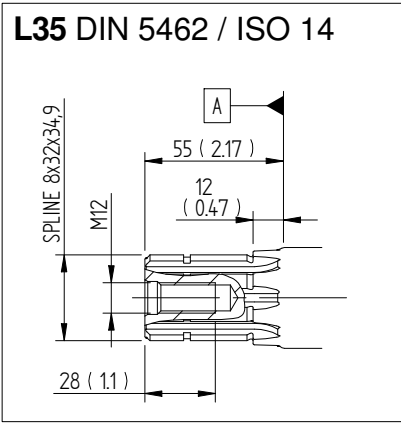
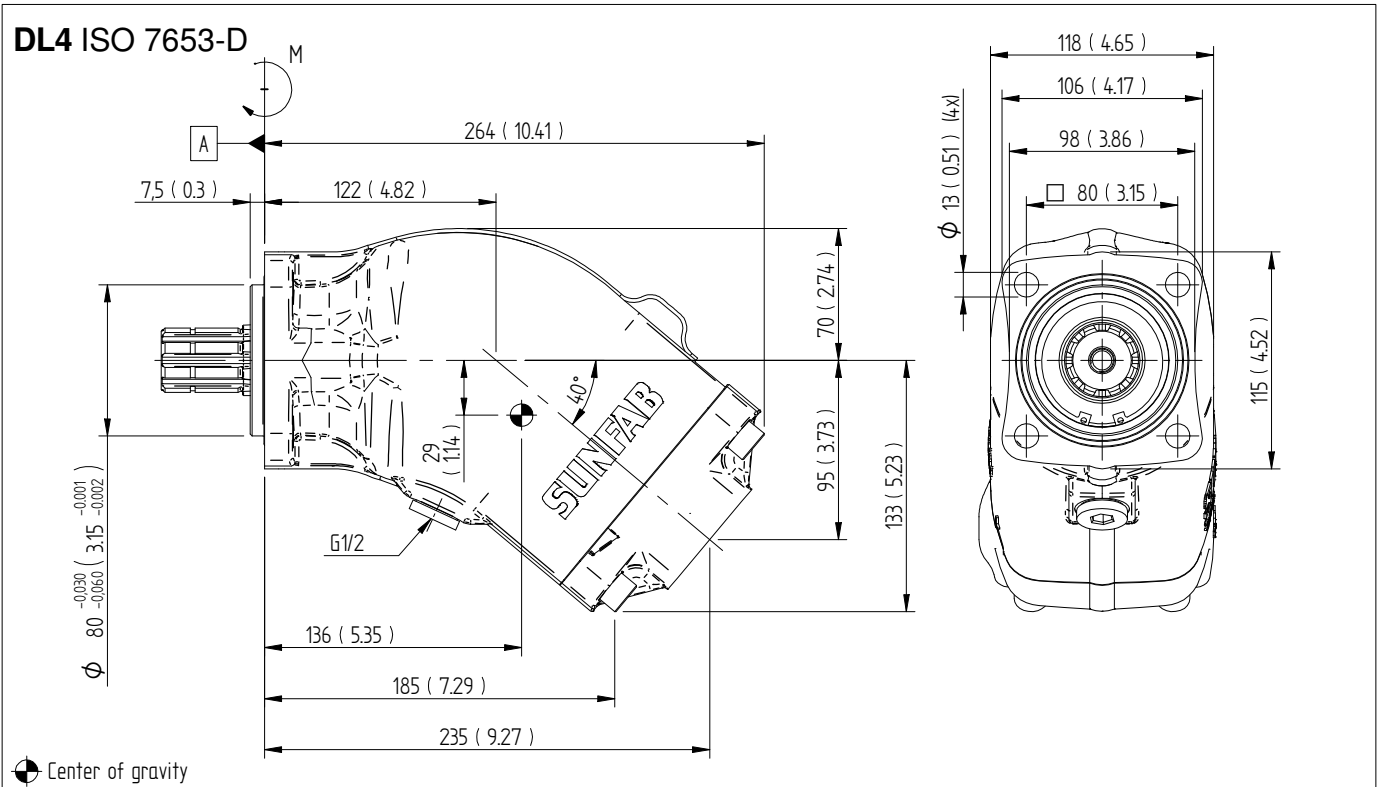
# Dimensions SAP 040-064 DIN

Millimeter (inch)



# Dimensions SAP 084-108 DIN

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

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