

HRP 5050-90 | 8050-90

High pressure CO₂ refrigerant pump

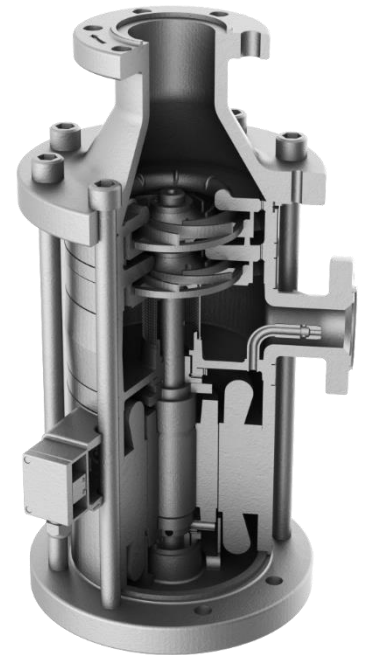


HRP up to 90 bar – high pressure CO₂ refrigerant pump

The F-gases phase-out is progressing and applications with the refrigerant R744 carbon dioxide (CO₂) are gaining more and more interest. Especially refrigeration plants up to 500kW performance require components that can withstand increased standstill pressures. When the system is at a standstill, the ambient temperature causes the pressure in the system to rise:

Ambient temperature	Standstill pressure	Necessary nominal pressure
+ 5° C 41,0° F	40 bars	PN 40
+ 24° C 75,2° F	63 bars	PN 63
+ 26° C 78,8° F	65 bars	PN 65
+ 33° C 91,4° F	80 bars	PN 80
+ 37° C 98,6° F	90 bars	PN 90

Pressure stages and temperature of CO₂



Depending on the achievable standstill temperature in the CO₂ separator, the appropriate pressure stage must be selected. The previous standard pressure stage of PN 40 is often no longer sufficient.

If the pressure rises above the maximum of the components, only two choices remain: the refrigerant charge is blown off via the safety valve or an emergency cooling is switched on until the pressure in the system falls below the maximum pressure again.

Better use our new high-pressure refrigerant pump HRP-90

No emergency cooling or charge blow off is required for your CO₂ systems during shutdown.

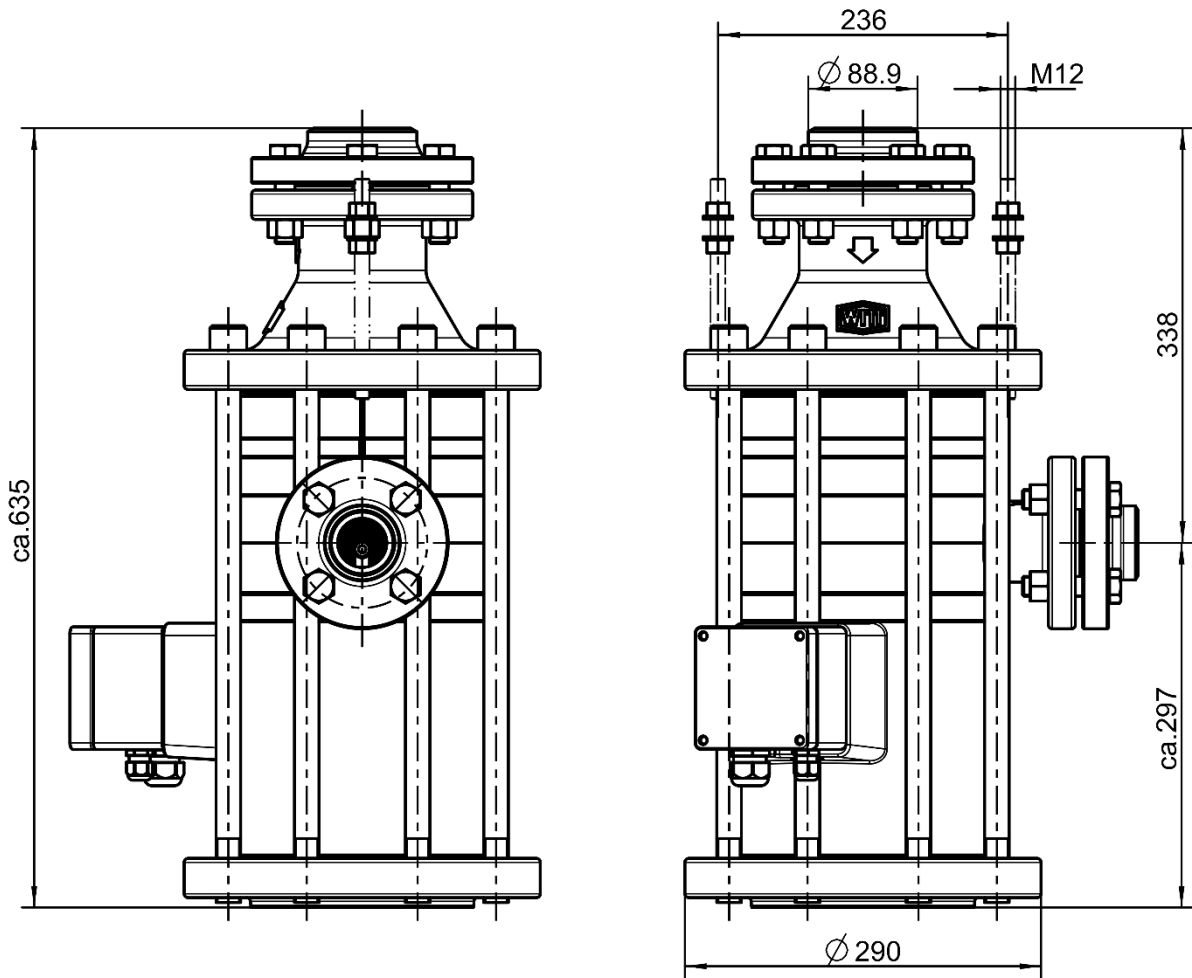
We supply a CO₂ pump series with standstill pressures up to 90 bar, which has been tested many times in the field, as a series product from stock.



Summary

- * Pressure resistant at standstill up to 90 bar
- * Refrigerant cooled
- * vertical, compact design
- * Hermetic design
- * Better venting at standstill due to the vertical design
- * Better cooling of the bearings

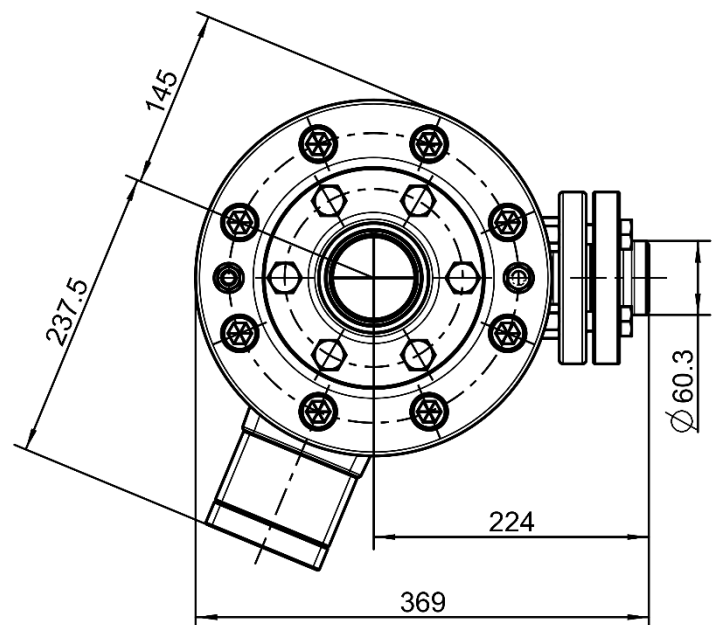
Technical data



	HRP 3232-65*	HRP 5050-90	HRP 8050-90
Nominal Pressure	PN 65	PN 90	PN 90
Max. capacity**	100 kW at 25 m	500 kW at 25 m 450 kW at 35 m	800 kW at 35 m
Max. height H	25 m	45 m	45 m
Max. volume \dot{V}	5,6 m ³ /h	15,0 m ³ /h	30,0 m ³ /h

* model is not shown

** $T_0 = -10^\circ \text{C}$, recirculation rate 1,5, 50 Hz



dimensions in mm



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