



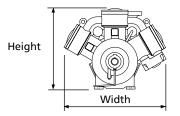


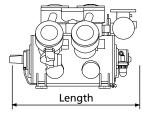
The Grasso 12 series. A range of outstandingly reliable, open type, reciprocating refrigeration compressors. All designed to work efficiently in almost any type of industrial refrigeration installation for cooling or freezing applications and all suited to use NH<sub>3</sub>, R404A, R507, R134a, R22 or any of the new alternative refrigerants. The Grasso 12 series contains the world's largest number of compressors within one range:

- 4 single-stage models
- 8 two-stage models with different LP/HP volume ratio's and LP swept volumes.

The Grasso 12 compressors have already proven themselves all over the world for many years in terms of reliability under the most demanding circumstances and with an alert eye to economics. Grasso has paid special attention to such aspects as maintenance costs and servicebility.

The Grasso 12 series offers you maximum reliability for modest investment and maintenance costs. The Grasso 12 series is a typical example of Grasso's unique welded steel compressor design. A design contributing to a large field of operation and lower installation cost without the need for additional water cooling circuits, especially in combination with ammonia (NH<sub>2</sub>).





Type ★	Swept volume 1000 min <sup>-1</sup> (m <sup>3</sup> /h)	Q <sub>o</sub> (kW)			Q₀ (kW)		Dimensions (mm)			Weight
•		NH,	R22	R134a	R404A	R507	L	W	н"	(kg)
Single-stage		0/+40 °C			-10/+40 °C					
Grasso 412	531	450	392	240	242	245	1317	1077	884	810
Grasso 612	796	675	588	360	363	368	1377	1171	931	1050
Grasso 912	1194	1012	882	540	544	552	1816	1171	931	1390
Grasso 1212	1592	1350	1176	720	726	736	2206	1171	931	1630
Two-stage •••		-35/+35 °C	-40/+35 °C		-40/+	35 °C				
Grasso 3112	398	86	71	-	-	-	1317	1077	884	810
Grasso 4212	531	125	104	-	101	105	1377	1171	931	1050
Grasso 5112	664	124	101	-	-	-	1377	1171	931	1050
Grasso 6312	796	188	158	-	154	160	1816	1171	931	1390
Grasso 7212	929	194	157	-	-	-	1816	1171	931	1390
Grasso 8412	1062	251	208	-	203	211	2206	1171	931	1630
Grasso 9312	1194	259	213	-	-	-	2206	1171	931	1630
Grasso 10212	1327	249	202	-	-	-	2206	1171	931	1630

Liquid subcooling = 5K Suction superheat = 5K (R404A/R507 = 15K) Temperature difference interstage cooler = 10K Interstage cooling system = "C" for  $NH_3$  and "B" economiser for synthetic refrigerants.

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