

HANDBOOK

REFRIGERATING SYSTEM PROTECTORS

Ed. 2017

 **Castel**[®]
Italian technology

CHAPTER 13 ■ HERMETIC STRAINERS

FOR REFRIGERATION PLANTS THAT USE THE R744 REFRIGERANT



APPLICATIONS

Filters 4520E illustrated in this chapter have been developed by Castel for all the applications that use the sub-critical R744 refrigeration fluid belonging to Group 2, defined in Article 13, Chapter 1, Point (b) of Directive 2014/68/EU, with reference to EC Regulation No. 1272/2008.

CONSTRUCTION

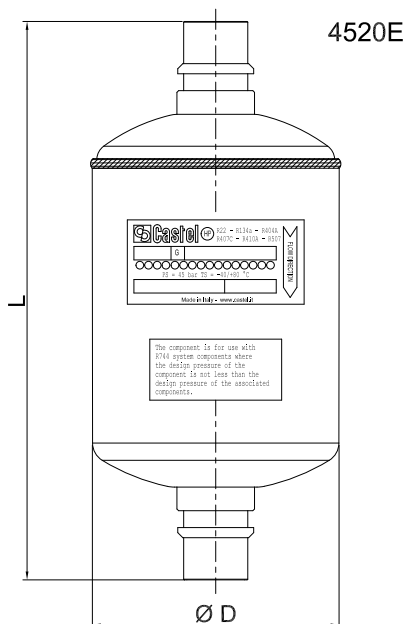
The filter body is made completely from steel with copper plated solder connections, offering the possibility to solder the copper pipe inside the connections (ODS). Inside the filters there is a screen basket, with large filter surface, made of austenitic stainless steel AISI 304. The mesh filters in series 4520E are not inspectionable and therefore cannot be cleaned.

TABLE 56: General characteristics of strainers for R744

Catalogue Number	Filtering Surface [cm ²]	Useful Passage Surface [%]	Mesh Opening [mm]	Connections				Kv Factor [m ³ /h]	PS [bar]	TS [°C]		TA [°C]		Risk Category according to PED Recast
				ODS		ODM				min.	max.	min.	max.	
				Ø [in.]	Ø [mm]	Ø [in.]	Ø [mm]							
4520E/M10	58	36,6	0,166	–	10	–	12	2,4	60	– 40	+80	– 20	+50	Art. 4.3
4520E/M12				–	12	–	14	3,4						
4520E/5				5/8"	16	3/4"	–							

TABLE 57: Dimensions and weights of strainers for R744

Catalogue Number	Dimensions [mm]		Weight [g]
	Ø D	L	
4520E/M10	52	109	195
4520E/M12		113	205
4520E/5		126	245



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ed. 001-DP-ENG

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