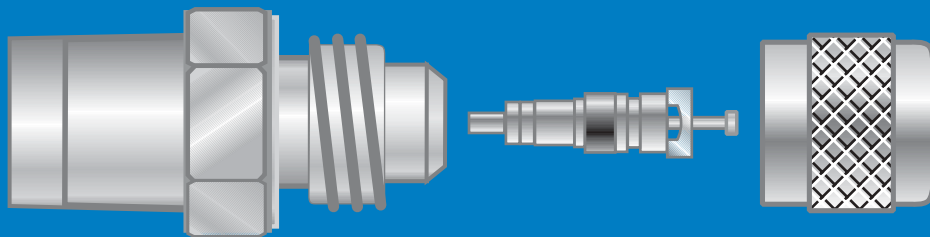


ACCESS FITTINGS & VALVE CORES





ACCESS FITTINGS & VALVE CORES

APPLICATIONS

All the access fittings and valve cores, shown in this chapter, are excluded from the scope of Directive 97/23/EC, as specified in the Guidelines 1/8 and 1/9, because they are piping components.

They are designed for installation on commercial refrigerating systems and on civil and industrial conditioning plants, which use refrigerant fluids proper to the Group II (as defined in Article 9, Section 2.2 of Directive 97/23/EC and referred to in Directive 67/548/EEC).

The access fittings allow to create a loading or draining point rapidly and with a minimum expense.

After completion of the loading or draining operations, the cap with gasket (cod. 8392/A) prevents any leakage.

For particular customer's requirements, the 7020/20 flare blind nut with combined 8580/2 copper flare gasket may replace the 8392/A cap.

This solution requires to screw the nut with a torque wrench at $8,5 \div 11,5$ Nm.

For system using R410A refrigerant, Castel has developed three specific access fittings with 5/16" SAE-Flare connection (codes 8350/X09, 8351/X05 and 8351/X07) that have to be used with the following parts:

- valve core, code 8395/A;
- flare blind nut, code 7020/X01;
- copper gaskets, code 8580/2.

Also this solution requires to screw the nut with a torque wrench at $8,5 \div 11,5$ Nm.

OPERATION

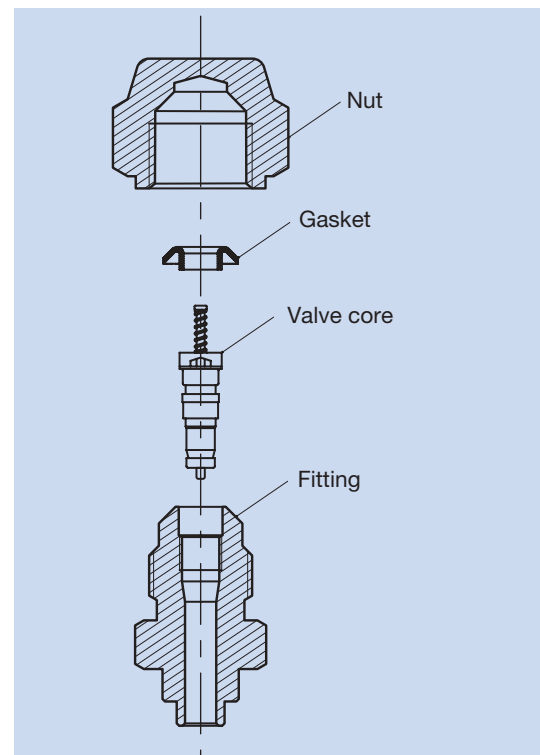
The valve consists of a body that can have different shapes and sizes, according to the different requirements of the customers. Inside the valve, the valve core seat is manufactured according to the ARI STANDARD 720:1997.

When the internal valve core has been inserted through the fitting, by the mounting tool (code 8390/A), the fluid flows just acting on the valve needle.

CONSTRUCTION

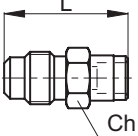
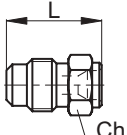
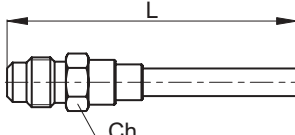
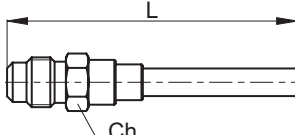
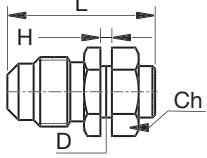
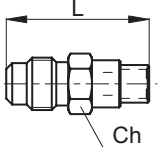
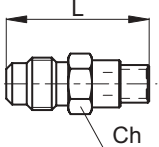
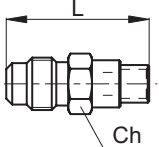
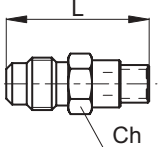
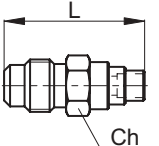
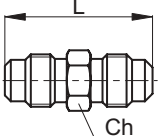
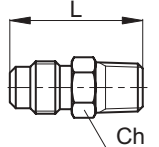
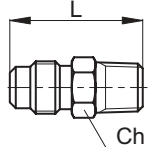
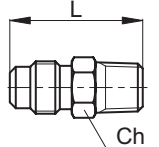
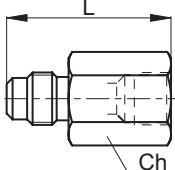
The straight fittings are machined by hexagonal brass bar EN 12164 – CW 614N. The TEE and cross fittings are manufactured with hot forged brass EN 12420 – CW 617N. The main parts of the valve cores are made with the following materials:

- brass EN 12164 – CW 614N for body;
- chloroprene rubber (CR) for seat gasket;
- chloroprene rubber (CR) for outlet seal gasket for types 8394/A and 8395/A;
- PTFE for outlet seal gasket for type 8394/B.



Access fitting with inserted valve core

TABLE 1: General Characteristics

	Catalogue Number	Connections						PS [bar]	Dimensions [mm]				
		SAE Flare		NPT	ODS		IDS		L	Ch	D	H	
		m	f		Ø [in.]	Ø [mm]	Ø [in.]						Ø [mm]
	8350/22	1/4"	-	-	1/4"	-	-	-	26	11	-	-	
	8350/X01	1/4"	-	-	-	6	3/8"	-	20	11	-	-	
	8350/X03	1/4"	-	-	-	-	-	6	90	11	-	-	
	8350/X11								130				
	8350/X09	5/16"	-	-	1/4"	-	-	-	27	14	9,4	2,1	
	8351/2	1/4"	-	-	-	6	-	8-10	45	30	11	-	-
	8351/X04					-	-	6					
	8351/X05					-	-	7					
	8351/X07					5/16"	-	3/8"		6			
	8351/X02	1/4"	-	-	-	5	1/4"	8	26	11	-	-	
	8352/22	1/4"	-	-	-	-	3/8"	-					
	8354/21	1/4"	-	1/8"	-	-	-	-	28	11	-	-	
	8354/22			1/4"					1/4"				33
	8354/23			3/8"					38				
	8362/22	1/4"	1/4"	-	-	-	-	-	35	17	-	-	

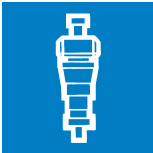


TABLE 2: General Characteristics

Catalogue Number	Connections					PS [bar]	Dimensions [mm]				Note
	SAE Flare		NPT	IDS			L	Ch	D	H	
	m	f		Ø [in.]	Ø [mm]						

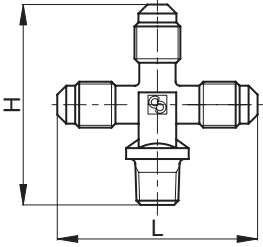
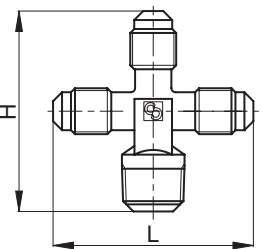
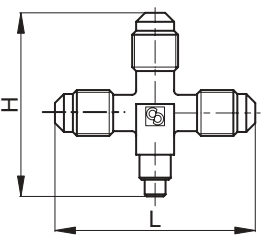
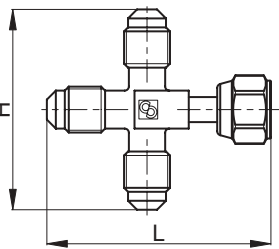
TEE access fittings

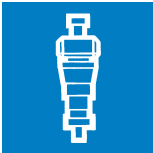
	8380/X01	1/4"	-	-	-	6	43	-	-	24	The valve core may be installed on each of the two 1/4" SAE Flare connections.
							45				
	8380/122	1/4"	-	1/8"	-	-	45	-	-	24	


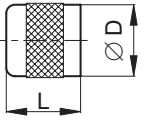
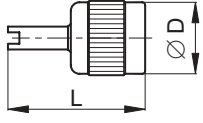
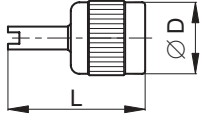
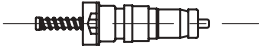
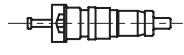
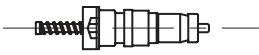

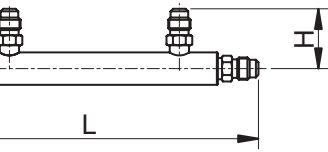
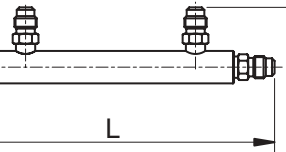
TEE access fittings with swivel nuts

	8380/X06						50				With valve-core opening device on female connection. The valve core may be installed on each of the two 1/4" SAE Flare connections.
		1/4"	1/4"	-	-	-	35	-	-	30	
	8380/X08							49			

TABLE 3: General Characteristics

	Catalogue Number	Connections					PS [bar]	Dimensions [mm]				Note
		SAE Flare		NPT	IDS			L	Ch	D	H	
		m	f		Ø [in.]	Ø [mm]						
Cross access fittings												
	8382/1222	1/4"	-	1/8"	-	-	48	-	-	50		
	8382/X02	1/4"	-	1/4"	-	-	45	48	-	50	The valve core may be installed on each of the three 1/4" SAE Flare connections.	
	8382/X03	1/4"	-	-	-	6	48	-	-	44		
Cross access fittings with swivel nuts												
	8382/X04	1/4"	1/4"	-	-	-	35	50	-	46	With valve-core opening device on female connection. The valve core may be installed on each of the three 1/4" SAE Flare connections.	


TABLE 4: General Characteristics

	Catalogue Number	Connections					PS [bar]	Dimensions [mm]				Note
		SAE Flare		NPT	IDS			L	Ch	D	H	
		m	f		Ø [in.]	Ø [mm]						
Core remover (for all types)												
	8390/A	-	-	-	-	-	75	-	-	-		
Caps with gasket												
	8392/A	-	-	-	-	-	13	-	-	-		
	8392/B	-	1/4"	-	-	-	35	-	13	-	The key needs to remove the valve core.	
							22					
Spare valve cores												
	8394/A	-	-	-	-	-	(1)	-	-	-	Outside spring. Torque wrench 0,25 / 0,30 Nm. (1) Static pressure: 40 [bar] (1) Working pressure: 28 [bar]	
	8394/B	-	-	-	-	-	(2)	-	-	-	Inside spring. Torque wrench 0,20 / 0,35 Nm. (2) Static pressure: 40 [bar] (2) Working pressure: 28 [bar]	
	8395/A	-	-	-	-	-	(3)	-	-	-	Outside spring. Torque wrench 0,4 / 0,8 Nm. (3) Static pressure: 68 [bar] (3) Working pressure: 48 [bar]	
Copper gasket with neck												
	8580/2	1/4"	-	-	-	-	45	2,8	-	5,2	-	
Manifolds with access fittings												
	9900/X47	-	-	-	-	-	-	175	-	-	30 Four ways	
	9900/X87	1/4"	-	-	-	-	35	-	-	-	30 Three ways	