



COMPONENTS FOR CO₂

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FOR CO₂



Heldon



Introduction

In recent years carbon dioxide (R744) has re-emerged as a suitable fluid for refrigeration applications. With an Ozone Depletion Potential (ODP) of 0 and Global Warming Potential (GWP) of 1, carbon dioxide is an environmentally friendly refrigerant. The vapour pressure of carbon dioxide is significantly higher than HCF's; approximately 100 bar when used in a transcritical cycle. Pressures can be reduced by operating the refrigerant in a sub-critical cycle.

In co-operation with a number of clients, Heldon has gained a wealth of experience in the applications of carbon dioxide as a refrigerant. This brochure details the current range of products with their maximum working pressures. Further products for both sub-critical and transcritical applications are being developed and are available on request.

Additional technical information is shown in the general catalogue. This includes selection and dimensional details. The products are also suitable for HFC refrigerants such as R410A.

Please contact Heldon for new or special applications:

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Liquid Receivers

Part No	Connection Size (inch)	Maximum Working Pressure (Bar)	Manufactured in accordance with:
Made to order - Contact factory	As specified	42	AS1210, AS2971

Helical Oil Separators

Part No	Connection Size (inch)	Maximum Working Pressure (Bar)	Manufactured in accordance with:
			CE Cat.
SH-5182	1/2 ID	40	CAT I
SH-5185	5/8 ID	40	CAT I
SH-5187 CE	7/8 ID	40	CAT I
SH-5188	1-1/8 ID	40	CAT I
SH-5190	1-3/8 ID	40	CAT I

Helical Oil Separator - Reservoirs

Part No	Connection Size (inch)	Maximum Working Pressure (Bar)	Manufactured in accordance with:
SH-5382-1.5L	1/2 ID	42	AS1210.3
SH-5388-2.5L	1-1/8 ID	45	AS1210.3
SH-5390-CE	1-3/8 ID	40	AS1210.3

Conventional Separators

Part No	Connection Size (inch)	Maximum Working Pressure (Bar)	Manufactured in accordance with:
3210-6406S	3/8 ID	42	AS 2971
3210-6406	3/8 ID	42	AS 2971
3210-6408	1/2 ID	42	AS 2971



Optronic Oil Level Regulator

Part No	Type	Maximum Working Pressure (Bar)	Manufactured in accordance with:
OP-03	Electronic	45	UL207



Mechanical Oil Level Regulators

Part No	Connection Size (inch)	Maximum Working Pressure (Bar)	Manufactured in accordance with:
SN-9530EHP	Adjustable	40	CE Cat. SEP



Oil Regulator Shut-Off Valves

Part No	Connection Size (inch)	Maximum Working Pressure (Bar)	Manufactured in accordance with:
S-9106E	1/4 SAE vertical	40	AS1677.2
S-9106H	3/8 SAE horizontal	40	AS1677.2
S-9106V	3/8 SAE vertical	40	AS1677.2
S-9106EH	1/4 SAE horizontal	40	AS1677.2



Oil Filters/Filter-Driers

Part No	Connection Size (inch)	Maximum Working Pressure (Bar)	Manufactured in accordance with:
SH-4005	3/8 MSAE	40	CE Cat. - SEP
SH-9105	3/8 MSAE	46	UL207



Strainers

Part No	Connection Size (inch)	Maximum Working Pressure (Bar)	Manufactured in accordance with:
90 series brass	1/4 to 5/8 MSAE range	42	AS2971, AS1677.2



Replaceable Core Filter Drier Shells

Part No	Connection Size (inch)	Maximum Working Pressure (Bar)	Manufactured in accordance with:
3017 series	7/8 to 2-1/8 ID range	42	AS2971, UL207 & CE



Replaceable Cores

Part No	Connection Size (inch)
3050-1	48 cu.in
3049-1	48 cu.in
3051-1	48 cu.in
3050-100	48 cu.in
3050-32	48 cu.in
3052-2	To suit 48 cu.in



Liquid Line Filter Driers

Part No	Connection Size (inch)	Maximum Working Pressure (Bar)	Manufactured in accordance with:
3000 series	1/4 to 3/4 MSAE range	42	AS2971 & UL207
3001 series	1/4 to 7/8 ID range	42	AS2971 & UL207



Pressure Relief valves

Part No	Inlet Connection Size (inch)	Maximum Working Pressure (Bar)	Manufactured in accordance with:
5230AX-xx.x BAR	1/4 MNPT	Up to 46	ISO 4126
5231AX-xx.x BAR	3/8 MNPT	Up to 46	ISO 4126
5231BX-xx.x BAR	1/2 MNPT	Up to 46	ISO 4126



Rupture Discs

Part No	Inlet Connection Size (inch)	Standard Pressure Settings (Bar)	Manufactured in accordance with:
5526-xx.x BAR-CE	1/2 MNPT	40.0, 42.0 & 46.0	ASME UD stamped



3-Way Valves

Part No	Inlet Connection Size (inch)	Maximum Working Pressure (Bar)	Manufactured in accordance with:
923	3/8 FNPT	46	AS1677.2
925	1/2 FNPT	46	AS1677.2
927	3/4 FNPT	46	AS1677.2



Pressure Indicator & Switch

Part No	Connection Size (inch)	Maximum Working Pressure (Bar)	Manufactured in accordance with:
G15	1/8 MNPT	41.4	SEP
SW60	1/8 MNPT	70	LVD & EMC



Level Switches

Part No	Connection Size (inch)	Maximum Working Pressure (Bar)	Manufactured in accordance with:
S-9420	1/2 MNPT	46	UL207
S-9420A	1/2 MNPT	46	UL207
S-9420DN	1/2 MNPT	46	UL207
S-9424	1/2 MNPT	46	UL207
S-9424A	1/2 MNPT	46	UL207
S-9424DN	1/2 MNPT	46	UL207
S-9424OCT	1/2 MNPT	46	UL207
S-9424-3/4UK	3/4 MNPT	46	UL207



Magnetic Check Valves

Part No	Connection Size (inch)	Maximum Working Pressure (Bar)	Manufactured in accordance with:
F6306	1/4 ID	55	AS/NZS 1677.2
F6307	3/8 ID	55	AS/NZS 1677.2
F6308	1/2 ID	52	AS/NZS 1677.2
F6309	5/8 ID	52	AS/NZS 1677.2
F6310	3/4 ID	41	AS/NZS 1677.2
F6311	7/8 ID	41	AS/NZS 1677.2
F6312	1-1/8 ID	41	AS/NZS 1677.2
F6313	1-3/8 ID	40	AS/NZS 1677.2



Check Valves

Part No	Connection Size (inch)	Maximum Working Pressure (Bar)	Manufactured in accordance with:
2027	7/8 to 1-5/8 ID connection sizes available	42	AS/NZS 1677.2



Ball Valves

Part No	Connection Size (inch)	Maximum Working Pressure (Bar)	Manufactured in accordance with:
907202, 937202/SG	1/4 ID	48	UL207 and CE
907203, 937203/SG, 947203	3/8 ID	48	UL207 and CE
907204, 937204/SG, 947204	1/2 ID	48	UL207 and CE
907205, 937205/SG, 947205	5/8 ID	48	UL207 and CE
907306, 937306/SG, 947306	3/4 ID	48	UL207 and CE
907307, 937307/SG, 947307	7/8 ID	48	UL207 and CE
907409, 937409/SG, 947409	1-1/8 ID	48	UL207 and CE
907511/937511, 947511	1-3/8 ID	48	UL207 and CE
907613/937613	1-5/8 ID	48	UL207 and CE
907617/937617	2-1/8 ID	48	UL207 and CE
907721/937721	2-5/8 ID	48	UL207 and CE
907725/937725	3-1/8 ID	40	UL207 and CE



Full Flow Rotalock Valves & Connectors

Part No	Connection Size (inch)	Maximum Working Pressure (Bar)	Manufactured in accordance with:
2605 series	3/8 to 1-5/8 ID range	42	AS/NZS 1677.1
292 series	1/2 to 1-3/8 ID range	42	AS/NZS 1677.2
293 series	3/8 to 1-3/8 ID range	42	AS/NZS 1677.2
295 series	1/4 to 1/2 ID range	42	AS/NZS 1677.2
296 series	3/8 to 7/8 ID range	42	AS/NZS 1677.2
965-26XX-xxS series	5/16 to 1-5/8 ID range	42	AS/NZS 1677.2



Packless Line Valves

Part No	Connection Size (inch)	Maximum Working Pressure (Bar)	Manufactured in accordance with:
2100 series	1/4 to 3/4 MSAE range	42	AS/NZS 1677.2
2100B series	1/4 to 3/4 MSAE range	42	AS/NZS 1677.2
2111 series	1/4 to 7/8 MSAE range	42	AS/NZS 1677.2
2111B series	1/4 to 3/4 MSAE range	42	AS/NZS 1677.2
2120 series	1/4 to 5/8 MSAE range	42	AS/NZS 1677.2



Packed Capped Valves

Part No	Connection Size (inch)	Maximum Working Pressure (Bar)	Manufactured in accordance with:
2090 series	7/8 to 1-5/8 ID range	42	AS/NZS 1677.2



Capped Line Valves

Part No	Connection Size (inch)	Maximum Working Pressure (Bar)	Manufactured in accordance with:
2201 series	1/4 to 3/4 MSAE x MBSP range	42	AS/NZS 1677.2
2202 series	1/4 to 3/8 MSAE x MNPT range	42	AS/NZS 1677.2
2210 series	1/2 MBSP x 1/2 MSAE	42	AS/NZS 1677.2
2220 series	1/4 to 5/8 MSAE range	42	AS/NZS 1677.2
2225 series	1/4 to 5/8 MSAE range	42	AS/NZS 1677.2
2227 series	1/4 to 3/8 MSAE x 1/4 to 3/8 ID range	42	AS/NZS 1677.2
2230 series	1/4 to 3/4 ID range	42	AS/NZS 1677.2
2235 series	1/4 to 3/4 ID range	42	AS/NZS 1677.2
2252 series	1/2 to 5/8 ID range	42	AS/NZS 1677.2



Service Valves

Part No	Connection Size (inch)	Maximum Working Pressure (Bar)	Manufactured in accordance with:
2240 series	1/4 to 5/8 MSAE x 1/4 to 5/8 ID range	42	AS/NZS 1677.2
2242R / 2242T series	3/8 to 7/8 ID range	42	AS/NZS 1677.2



Moisture Indicators

Part No	Connection Size (inch)	Maximum Working Pressure (Bar)	Manufactured in accordance with:
650 series	1/4 to 5/8 MSAE range	42	AS/NZS 1677.2
655 series	1/4 to 1/2 MSAE x FSAE range	42	AS/NZS 1677.2
658 series	1/4 to 3/4 ID range	42	AS/NZS 1677.2
659 series	1/4 to 5/8 ID x 1/4 to 5/8 F/Swivel range	42	AS/NZS 1677.2
665 series	1/4 to 3/4 ID range	42	AS/NZS 1677.2
670 series	7/8 to 2-1/8 ID range (Single Port)	42	AS/NZS 1677.2
675 series	7/8 to 2-1/8 ID range (Dual Port)	42	AS/NZS 1677.2



Rotalock Sight Glasses

Part No	Connection Size (inch)	Maximum Working Pressure (Bar)	Manufactured in accordance with:
647-2020-x series	1-1/4 Rotalock Sight Glass range	52	AS/NZS 1677.2



Flexible Hose (FCT's)

Part No	Connection Size (inch)	Maximum Working Pressure (Bar)	Manufactured in accordance with:
Errecinque range	2.0, 4.0, 6.5 & 10.5mm ID range	60	EN1736



Vibration Eliminators

Part No	Connection Size (inch)	Maximum Working Pressure (Bar)	Manufactured in accordance with:
V-1/4	1/4 ID	44.8	CE marked & UL
V3/8	3/8 ID	44.8	CE marked & UL
V-1/2	1/2 ID	44.8	CE marked & UL
V-5/8	5/8 ID	44.8	CE marked & UL
V-3/4	3/4 ID	44.8	CE marked & UL
V-7/8	7/8 ID	44.8	CE marked & UL
V-1-1/8	1-1/8 ID	41.3	CE marked & UL



Vibration Eliminators (S/STL)

Part No	Connection Size (inch)	Maximum Working Pressure (Bar)	Manufactured in accordance with:
VS-1/4	1/4 ID	60	CE marked
VS-3/8	3/8 ID	60	CE marked
VS-1/2	1/2 ID	60	CE marked
VS-5/8	5/8 ID	60	CE marked
VS-3/4	3/4 ID	60	CE marked
VS-7/8	7/8 ID	60	CE marked
VS-1-1/8	1-1/8 ID	60	CE marked
VS-1-3/8	1-3/8 ID	60	CE marked
VS-1-5/8	1-5/8 ID	45	CE marked
VS-2-1/8	2-1/8 ID	40	CE marked



Brass Fittings

Part No	Connection Size (inch)	Maximum Working Pressure (Bar)	Manufactured in accordance with:
Entire Brass Fitting range	Various	Suitable at over 42 bar	N/A



Copper Fittings

Part No	Connection Size (inch)	Maximum Working Pressure (Bar)	Manufactured in accordance with:
1004 series	1/4 to 1-1/4	Suitable at 42 bar	Exceeds B16.22-1989
1009 series	3/16 to 1-5/8	Suitable at 42 bar	Exceeds B16.22-1989
1022 series	1/2 to 1	Suitable at 42 bar	Exceeds B16.22-1989
1024S series	1/2 to 1	Suitable at 42 bar	Exceeds B16.22-1989
1024 series	1/4 to 1-5/8	Suitable at 42 bar	Exceeds B16.22-1989
1025 series	3/8 to 1-5/8	Suitable at 42 bar	Exceeds B16.22-1989
1049 series	3/16 to 1-1/4	Suitable at 42 bar	Exceeds B16.22-1989
1062 series	3/8 to 1/2	Suitable at 42 bar	Exceeds B16.22-1989
1080 series	5/8 to 1-1/8	Suitable at 42 bar	Exceeds B16.22-1989
1105 series	1/4 to 3/4	Suitable at 42 bar	Exceeds B16.22-1989
1120 series	1/2 to 1-5/8	Suitable at 42 bar	Exceeds B16.22-1989
1130 series	1/2 to 5/8	Suitable at 42 bar	Exceeds B16.22-1989





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