

DIAPHRAGM COMPRESSOR MAINTENANCE PARTS



Document contents (Guide for part list preparation. 5 Pages)

Howden BC Compressors recommendation document about stock of maintenance parts for Burton Corblin® Diaphragm equipments.

Quantities mentioned are for continuous operations (8.000 hours a year).

Howden propose kits. Kits secure presence of all parts necessary to new component mounting operations.

Associated parts necessary to major component changes, are mentioned in the document.

Additional components may be necessary considering that site operation conditions can be very hard, and having difficult environment situation.

For not continuous operations refer to Howden BC Compressors maintenance planning.

How to use the document

Components are tagged on generic drawings to simplify part identification. Drawings are not contractual, and don't fully match all installation constructions. Designs can change according compressor models, generation of compressor, performances (pressure, flow), gas type and compressor environment conditions.

Communicating compressor serial number, allows Howden specialists proper part selection. Typical quantities suggested cover a period of operations.

Units

Kit : Group of parts to be replaced simultaneously..

Part : Component that can be used separately, or as associated part for mounting another major component on the compressor .

Set : Group components packed in one set, generally belonging to the same sub assembly, .

Volume : Oil quantity mentioned in the maintenance manual, as well as the oil grade.

Associated

Associated column mention "Take V" (Crankshaft replacement Example). For the replacement of this major component, other components, owning letter "V" (bearings...) in the associated column, have to be selected. It applies the same way for all other components in the document.

Some group of parts can be delivered assembled when have * sign on the label . This recommendation has been placed to ensure valid manufacturers' tightening torques and clearance values. A special mention for getting this service is to be indicated to Howden specialists on part requests.

Installed

Installed quantities in the assembly mentioned in section head. A set of suction valves is to be considered as the number of suction valves installed in the compression head, (2 on typical sketch , and 1 for other designs).

For compressors having multiples heads, a list of parts is to be establish for each of them for the Head, Valves and Oil Circuit Sections.

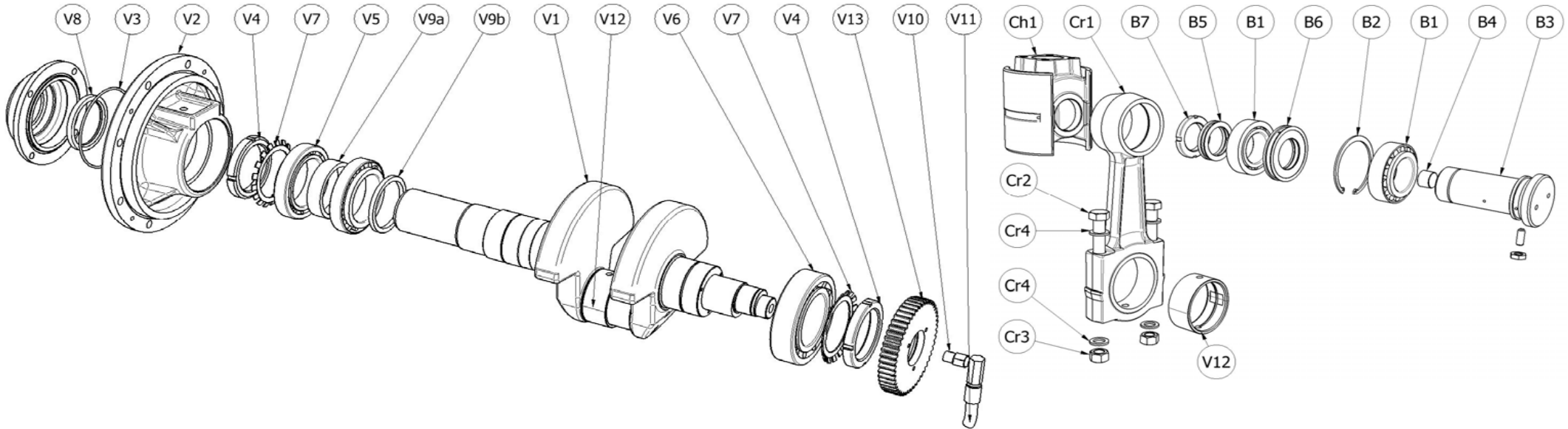
Recommended

This multiplier is to be applied on the installed quantity of part/set/kit recommended for the concerned period. (Based on 8000 hours contenoperation per year).

DIAPHRAGM COMPRESSOR MAINTENANCE PARTS

Quantities for continuous operations (8000 hours per year)

CRANKSHAFT		item	Associated	Unit	installed	Start-up	1 year	2 years	3 years	5 years	Capital	MECHANICAL ASSEMBLY		item	Associated	Unit	installed	Start-up	1 year	2 years	3 years	5 years	Capital	
Crankshaft Bearing Holder Flywheel Side Bearing Holder O'ring	Crankshaft	V1	Take V*	Kit	1						1	Connecting Rod Connecting Rod Bolt Nuts - Washers	Con.rod	Cr1	Take Cr*	Kit	1						1	
		V2				Cr2																		
		V3	Cr3 - Cr4																					
		V5	V*	Kit	1						1	1	Crosshead	Crosshead	Ch1	Take Ch	Kit	1						1
		V6																						
V7 - V4 - V9																								
Shaft End Seal		V8	V*	Part	1		1	1	2	2		Bearing (or Bush) Small End Snap Ring Crosshead Pin & Lock Screw Plug - Gasket (According design) Distance Piece	Crosshead	B1	Ch - Cr*	Kit	1					1	1	
Oil Pump Driving Gear	V13																							
Rotating Connector Flexible Hose		V10	V*	Part	1					1	1			B2										
	V11																							
Big End Bearing		V12	V* - Cr*	Set	1					1	1	Crankcase Gasket Set		No	Set	1		1	1	2	2			



Above Typical Sketches are not contractual. Compressor designs are not identical and present differences on part designs and installed quantities.

EXPLANATIONS

Maintenance parts to be stored. Quantities to be adjusted to real operating conditions. For lower operating times, refer to the maintenance planning.

Capital parts have long manufacturing process (Storage recommended for critical Components)

INSTRUCTIONS

* Assembly recommended to be mounted in HBC to match constructor assembling instructions.

Main components must be replaced together with their associated parts having same code.

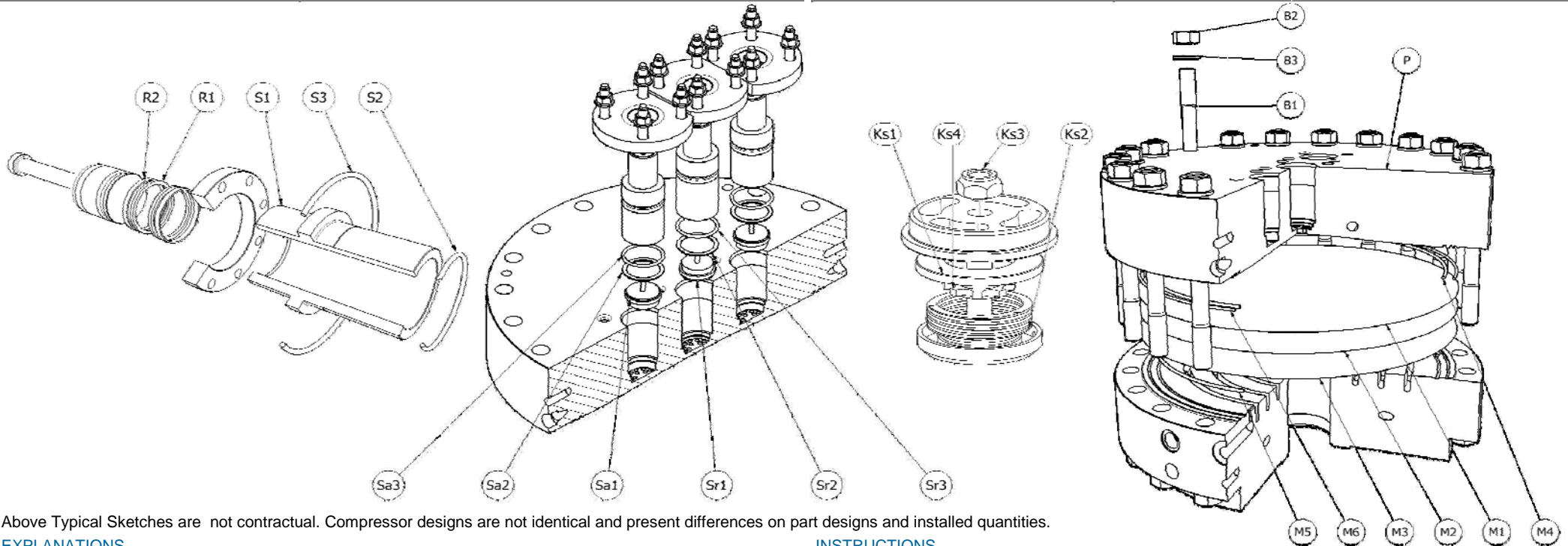
Parts tagged as associated to a main component can be supplied separately as lonely part.

DIAPHRAGM COMPRESSOR MAINTENANCE PARTS

Quantities for continuous operations (8000 hours per year)

COMPRESSION HEAD Duplicate List for Multiple Head Designs		item	Associated	Unit	installed	Start-up	1 year	2 years	3 years	5 years	Capital
Cylinder	Seal Rings	R1	Take R	Kit	1		1	1	2	3	1
	Guide Rings	R2	Take R	Kit	1						
	Piston Sleeve - O'ring	S1 - S2	Take S	Kit	1					1	1
	Distance Piece Gasket	S3	B - Ch - R	Part	1						1
	Perforate Plate Gasket (According design)	S		Part	1	1	2	4	6	10	1
Head	Gas Plate	P	Take P	Kit	1						1
	Gas, Intermediate,Oil side Diaphragms	M1 - M2 - 3	Take M	Kit	1	1	2	4	6	10	1
	Gas, Oil and HIDS O'rings	M4 - M5- 6	M - P	Kit	1	1	2	4	6	10	1
	Head Bolts, Nuts, Washers	B1 - B2 - B3	P	Kit	1						3

HEAD VALVES Duplicate List for Multiple Head Designs		item	Associated	Unit	installed	Start-up	1 year	2 years	3 years	5 years	Capital
Valve	Suction Valve Assembly	Sa1	No	Set	1		1	1	1	2	1
	Valve Gasket Holdown O'ring	Sa2 Sa3	No	Set	1		1	1	1	2	1
Valve	Discharge Valve Assembly	Sr1	No	Set	1		1	1	1	2	1
	Valve Gasket & Holdown O'ring	Sr2 - Sr3	No	Set	1		1	1	1	2	1
Valve internals	Suction & Discharge Valve Discs	Ks1	No	Set	1	1	1	3	5	8	
	Suction & Discharge Valve Springs	Ks2	No	Set	1	1	1	3	5	8	
	Suction Valve Gasket - Holdown O'ring	Sa2 - Sa3	No	Set	1	1	1	3	5	8	
	Disc. Valve Gasket - Holdown O'ring Lock Nut	Sr2 - Sr3 Ks3	No	Set	1	1	1	3	5	8	



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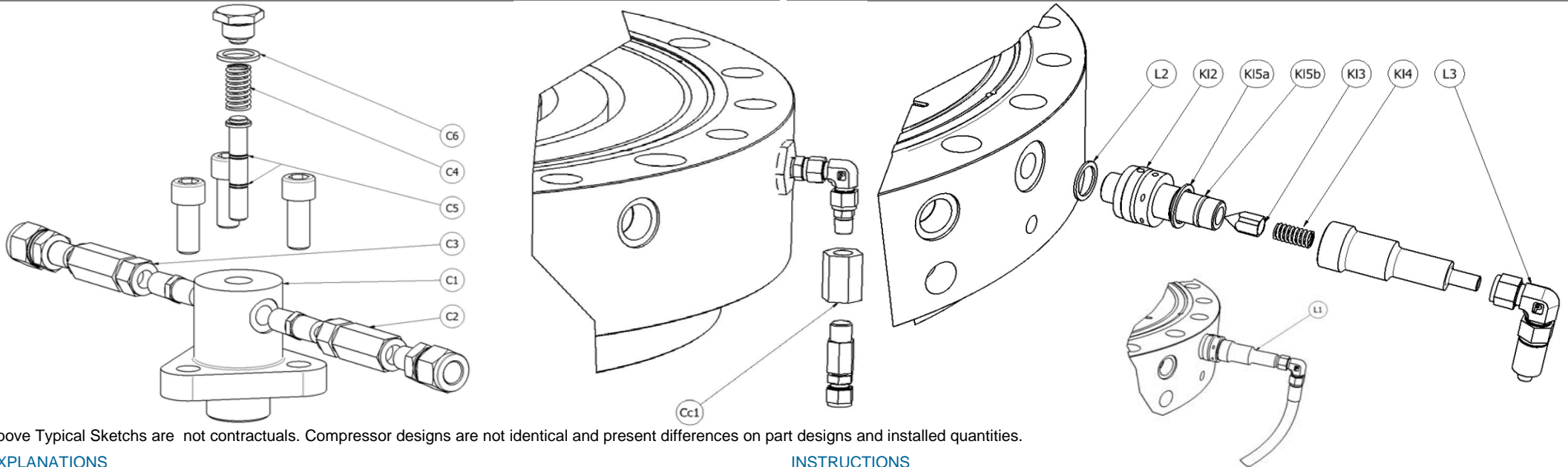
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DIAPHRAGM COMPRESSOR MAINTENANCE PARTS

Quantities for continuous operations (8000 hours per year)

OIL FEEDING CIRCUIT Duplicate List for Multiple Head Designs				item	Associated	Unit	installed	Start-up	1 year	2 years	3 years	5 years	Capital	OIL LUBRICATION CIRCUIT				item	Associated	Unit	installed	Start-up	1 year	2 years	3 years	5 years	Capital
Pressure Limiter Limiter Connector Gasket	L1 L2	No	Part	1								1	1	Oil Strainer	Lubrication	Oi1	No	Part	1					1	1		
Compensator Connection Gasket (According design)	C1 -	Take C	Kit	1								1	1	Oil Volum		O1	Take O	Volum	1	S	S	S	S	S	S	S	
Piston Spring Piston Rings Compensator Gasket Set Connection Gasket (According design)	C4 C5 C6 -	No	Kit	1	1	1	1	2	3	4				Oil Filter Cartridge Oil Filter Cartridge Gaskets Oil Drain Plug Gasket		O2 O3 O4	O	Set Set Part	1	1	2	4	6	10	1		
																											Head Oil Non Return valve Valve Gasket (According design)



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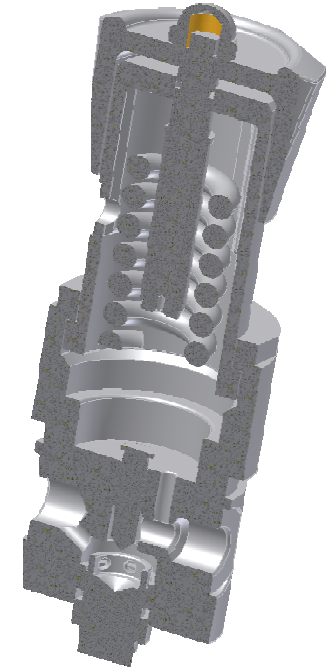
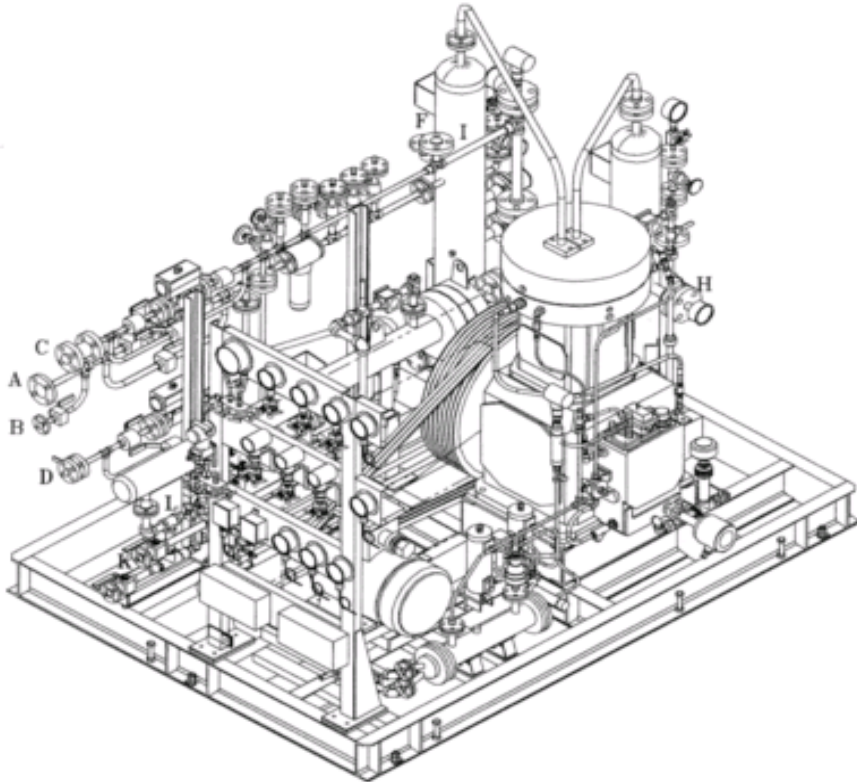
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Quantities for continuous operations (8000 hours per year)

SKID / PACKAGE COMPONENTS	item	Associated	Unit	installed	Start-up	1 year	2 years	3 years	5 years	Capital	SKID / PACKAGE COMPONENTS	item	Associated	Unit	installed	Start-up	1 year	2 years	3 years	5 years	Capital
V-Belts	P1	No	Set	1			1	2	2	1	Gas Cooler Gasket Set	P5	No	Set	1				1	2	1
Process Valve Actuator	P2	No	Kit							1	Gas Filter Cartridge Gas Filter Cartridge Gaskets	P6 P7	No	Kit	1		1	1	2	3	1
Back Pressure Valve Repair Kit	P3	No	Set	1			1	2	2	1	Gaz Piping Gasket Set	P8	No	Set	1		1	1	2	3	1
Valve Regulator Repair Kit	P4	No	Set	1			1	2	2	1											1



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