

OEM Valves Burton Corblin[®] Compressors



Valves are the compression chamber inlet and outlet points.

Their features are critical for the good compressor performances for flow, temperatures, compressing ratio, and their ability to resist to aggressive gases.

OEM valves are compatibles with major parts directly in contact with them (Cylinders, Gas plates...), et don't fragilise other components that can be impacted by any under performances.

Beyond the use of OEM Howden components during contract garanty period of Howden compressors, OEM valves give acces to Howden support after this period for operating your compressors in full confidence and serenity.

Role and Performances

Valves ensure gas circulation in compression chamber. Their design is important. Valves open and close at the same frequency as the compressor shaft rotation.

Valves must systematically be checked or replaced during maintenance operations.

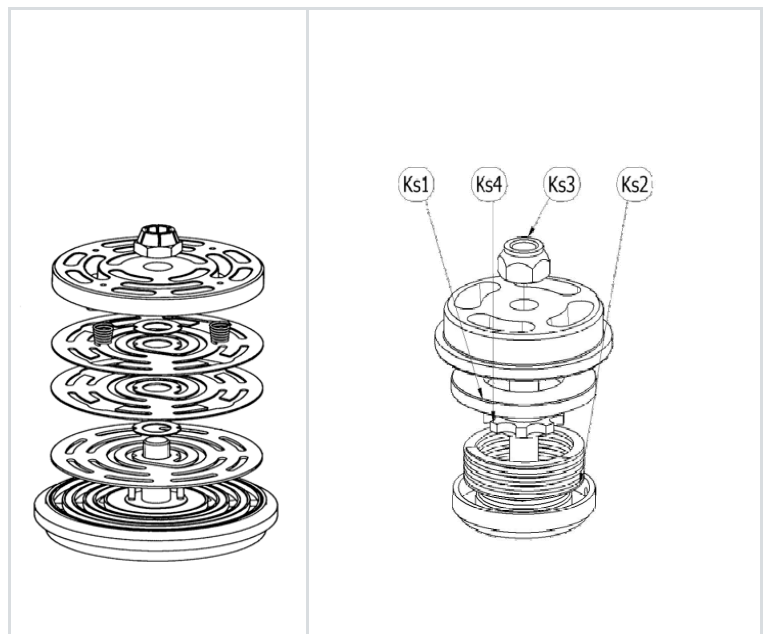
Valves are defined by their flow area, their material, the spring features, and type of internal discs. A not adapted valve impacts the installation performance, its lifetime, and the the other compressors' components lifetime.

Incorrect valve lift affects compressor efficiency.

- Gas slowed in valves.
- Flow losses due to gas returning back to compression chamber.

Springs ensure :

- Disc speed control at valve closing
- Prevent from valve disc rupture, and permature valve seat wear.



Typical valve designs for reciprocating piston and diaphragm compressors

OEM Howden Approach

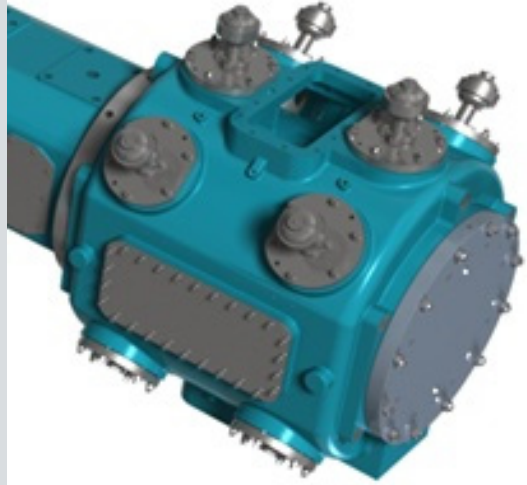
Howden valves are systematically associated to the recipient compressor.

A compatibility check is conducted at each valve request. OEM Valve tracking gives access to Howden support for each served compressor.

The use of original parts avoids possible important costs due to the damage of major parts due to the presence of not adapted parts or assemblies. Impacts can also be on installation performances .

Howden valves preserve major parts (Cylinders, Head plates..) from damages and avoid long and expensive production stops.

Spare parts integrate Howden technology developments. User benefit of relevant evolutions through the delivery of OEM parts .



Howden Support

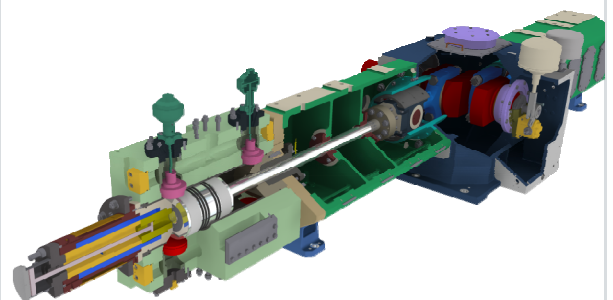
Howden can propose substitution parts to avoid unacceptable long stops when not planned, generated by a component rupture.

In case of components excessive wear, Howden doesn't limit the investigations to the consequences, and keep the focus on the origins. Origins of failures lead to more economical solutions compared to solutions consisting in replacing worn parts only or changing just their design.

Howden advise operators for the management of valves, the valves parts and surrounding components necessary for current maintenance over a given period.

Howden teams propose all parts necessary for the valves replacement together with necessary quantities for the maintenance operations.

Howden can define maintenance schedules with sites and related necessary components.



Up Grades

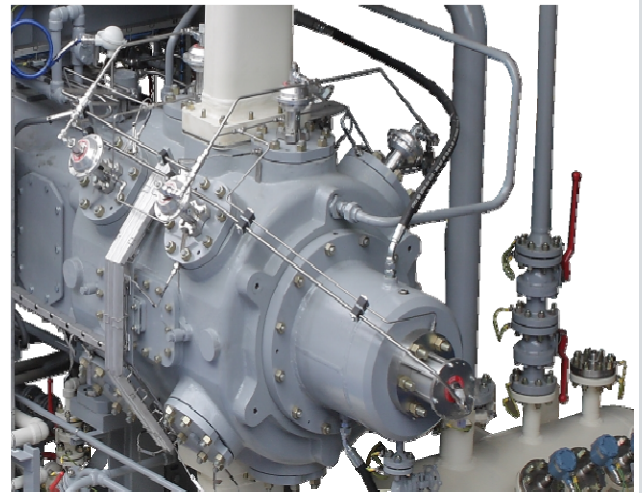
Life time improvements. Studies for the modification of compressor package sub assemblies or equipments impacting valve lifetime.

New operating conditions.

Feasibility study and solution deployment support for the operating condition changes such as gas quality grades, suction pressures, capacity flows to handle....

Site operation changes.

New capacity control systems to handle flow fluctuation. Step and progressive systems, bypass solutions, additional pocket volumes and speed variation.



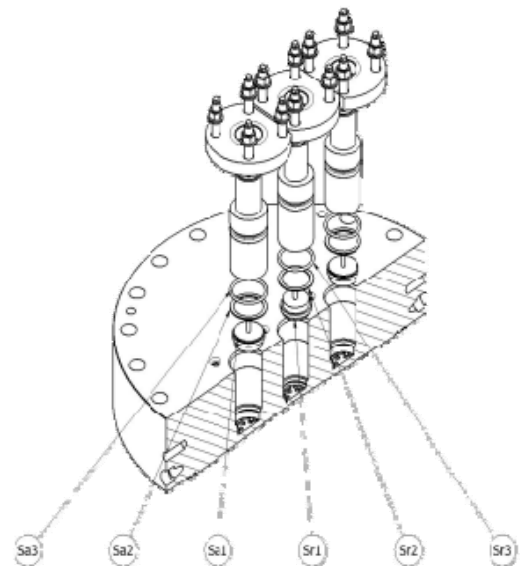
Surrounding Components

Howden parts for Servo Cylinders, and release clutches for reciprocating piston compressors.

Parts associated to valves' maintenance. (Door and cover gaskets, valve gasket, valve holddown o'rings).

Howden can direct you to Howden technical documentation sections containing assembling instructions (Tightening torques), and recommend adapted tools .

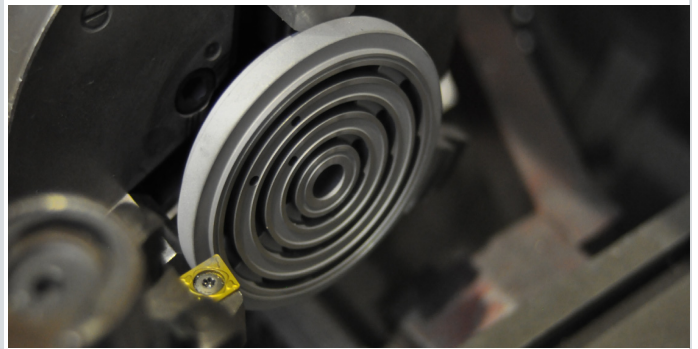
Howden can specify what eventual specific tools can be used for operation such as for the valves' extraction from gas plates valve lodgings on diaphragm compressors.



Valve Reconditioning

Howden valve reconditioning extends the lifetime of worn valves. Operations conducted are defining to recover initial compressor performances through the OEM service.

Howden reconditions the valves seats and stops geometry, replaces wear moving parts, reassembles test, packs and tags the renewed valves.



Maintenance Support

Valves maintenance and supervision is part of a current maintenance operation plan defined according site conditions such as gas profile, cumulated operating time and starts/stops frequencies.

Proper maintenance plan :

Avoid valve broken internal parts to enter in cylinders, in the middle of cylinder moving parts.

Avoid abnormal heat initiated by damaged seats or distorted discs.

Avoid flow losses and heat due to valves section obstructed by process particles ...

PLANNING DE MAINTENANCE COMPRESSEUR A MEMBRANES

Compresseurs à membranes Burton Corbin®



Compteur heures	Relevé d'heures de fonctionnement depuis la première mise en service du compresseur																											
Relevé	500	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	9500	10000								
500 Heures par an	S	A	A	A	B	A	B	A	A	A	A	A	E															
2000 Heures par an	S	A	A	B	A	B	A	C	A	B	A	D	A	C	A	B	A	B	A	C	A	E						
4000 Heures par an	S	A	A	B	A	B	A	C	A	B	A	C	A	B	A	D	A	B	A	C	A	B	A	C	A	B	A	E
6000 Heures par an	S	A	A	B	A	B	A	C	A	B	A	C	A	B	A	D	A	B	A	C	A	B	A	C	A	B	A	E
9000 Heures par an	S	A	A	B	A	B	A	C	A	B	A	C	A	B	A	D	A	B	A	C	A	B	A	C	A	B	A	E

S Inspection démarrage • Vidange & remplacement Filtre à huile • Nettoyage bob • Nettoyage Clapets • Contrôle Filtre aspiration • Contrôle des composants
A Inspection intermédiaire • Contrôle des paramètres et des composants du compresseur
D Inspection intermédiaire • Vidange • Contrôle des paramètres et composants (Remplacement Filtre gaz si nécessaire) • Remplacement soupapes sur plateau à gaz
E Inspection intermédiaire • Contrôle des paramètres et des composants du compresseur

C Entretien • Vidange & nettoyage bob • Changement Cartridge filer, Composants et Joints de carter d'huile • Soupapes déviateur • Contrôle & Réglage
I Entretien particulier • Entretien C • Contrôle partie mécanique & Pompe à huile • Contrôle appareil sous pression • Remplacement/ajustement piston • Contrôle
D Entretien mécanique • Entretien D • Révision partie mécanique: Roulements, Coussinets, Regarde pied de bride • Contrôle • Limiteur • Compensateur

*Compensateur de circuit d'huile: Limiteur, Compensateur, et clapets de non-retour de compensateur, et de réglage. L'entretien de ces composants est critique pour le maintien du groupe.
 Le remplacement de membranes est une opération d'entretien courante, mais ne peut pas apparaître dans une planification. (Prévoir les 3 opérations)
 PIÉCES Instructions pour les opérations d'entretien A B C D en page 2
 Instructions pour l'opération d'entretien mécanique E et les mises à jours sur page 3 & 4
 Pour plus d'information contactez: Howden BC Compressors 62 à 66 Rue Roland Vachette 60180 Nogent Sur Oise, France

Contact Howden for any additional information:

Howden BC Compressors 62 à 66 Rue Roland Vachette 60180 Nogent Sur Oise, France

Tel: + 33 (0)3 44 74 41 00

Fax: + 33 (0)3 44 71 72 43

Email: hbc.spares@howden.com

Web: www.chartindustries.com/howden