

COMPRESSOR ACCESSORIES

The proper selection of the compressor's accessories can have a significant affect on the life and operation of the system. Most accessories will be selected to address one or more of the following concerns:

Safety Capacity Control Operational Concerns

Material compatibility Temperature Control Liquid or solids in the gas stream.

Here is brief list of the items that should be considered:

Drivers - Electric motors are the most common drivers, but gas or diesel engines are also used. Each type of driver has unique characteristics that must be understood.

Drive Systems - Most Blackmer compressors are V-belt driven. However, direct drive, gearbox, jack shaft, PTO or cog belt systems may also be used.

Electrical Devices - Almost all applications will require devices to sense pressure, temperature or liquid level to control the compressor or shut the system down if a preset limit is exceeded. Also, all electric motors will require a starter and a logic circuit to process these signals. A through understanding of the application and knowledge of the electrical characteristics (area classification, voltage, phase, cycles, etc.) is essential to the proper selection of these components.

Relief Valves - Since Blackmer compressors are positive displacement devices, a relief valve <u>must</u> be installed in the compressor discharge line between the compressor and the first shutoff valve. Other relief valves may also be used.

Liquid Traps and Other Vessels - <u>All</u> liquefied gas systems and many other applications will require a liquid trap just upstream of the compressor. Other vessels are also very common.

Heat Exchangers - Control of the gas temperature is essential. For this reason, most applications will require some gas cooling. Heat exchangers may be placed in the suction line, at the interstage, or in the discharge. Also, water-cooled models will often have a water recirculation system with a heat exchanger.

Valves, Fitting, and Piping - Flow direction control valves, shutoff valves, backcheck valves, regulators and strainers are all common elements in compressor applications. Piping systems are available in numerous pressure ratings and in a variety of threaded or welded systems.

Instrumentation - Gauges to provide visual information on pressures, temperatures, liquid level or flows are used in every installation.