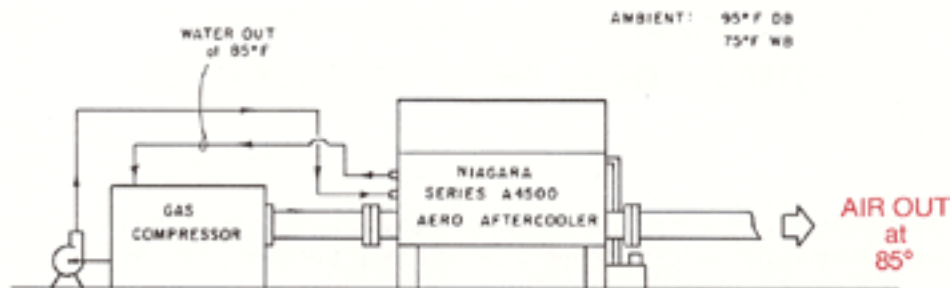


THE NIAGARA AERO® AFTERCOOLER



DIRECT COOLING USING EFFICIENT WET SURFACE HEAT EXCHANGER

COMBINES

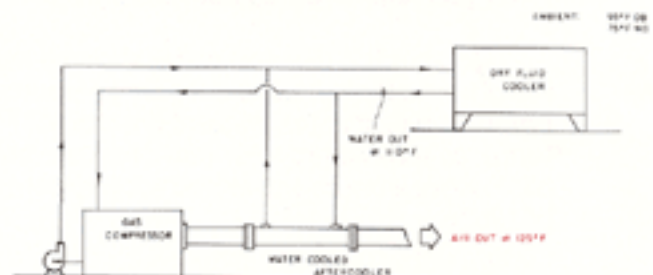
THE EFFICIENCY OF
'ONCE-THRU' WATER SYSTEM

&

THE ECONOMY OF A
'CLOSED-LOOP' SYSTEM



EXPENSIVE DIRECT COOLING
(ONCE THROUGH WATER)



INEFFICIENT, INDIRECT COOLING
WITH DRY SURFACE COOLER

AND PROVIDES THE FOLLOWING ADVANTAGES:

- NO WASTE OF COSTLY CITY WATER
- INCREASED EFFICIENCY OVER DRY FLUID COOLER
- ELIMINATES THE PURCHASE AND INSTALLATION OF SHELL & TUBE UNIT AS THE NIAGARA SYSTEM COOLS PROCESS GAS DIRECTLY

(SEE REVERSE SIDE FOR DETAILS)

Niagara Blower Company

673 Ontario St., Buffalo, NY 14207 - 0208

Telephone 1-800-426-5169 or (716)-875-2000 in New York State

DIRECT COOLING OF COMPRESSED GASES USING THE NIAGARA AERO® AFTERCOOLER

Due to the rising cost of municipal water (as well as sewage costs) many users of gas compressors have begun cooling with closed loop systems utilizing dry-surface fluid coolers. This arrangement saves water costs but the cooling efficiency is drastically reduced. The Niagara Aero Aftercooler saves both water costs and provides both gas and water cooling at levels of efficiency rivaling cooling with municipal water supplies.

The high efficiency of Niagara's Series A4500 units is based on two (2) basic ideas: Take advantage of evaporative cooling; and cool as directly as possible.

By continuously drenching the cooling coils with water, the evaporative cooling effect allows fluids to be cooled to within degrees of the ambient 'wet bulb' temperature, which is consistently below 80° F for most parts of North America. This produces much lower gas temperatures than are possible with dry surface cooling.

Cooling the gas and water streams directly eliminates the inefficiencies associated with intermediate heat exchangers — namely the water-cooled aftercooler (shell & tube). For example, at ambient conditions of 95° F dry bulb and 75° F wet bulb temperatures, the Niagara Aero Aftercooler can produce leaving compressed gas temperatures as low as 85° F, while a dry cooler closed-loop system will typically provide leaving gas temperatures of 125° F.

The obvious advantage of these two concepts lies in the fact that the lower the leaving gas temperature, the less moisture is left in gas supply to condense out and foul downstream equipment. Also, a considerable capital investment savings is realized in that both the dry cooler and the water-cooled aftercooler are replaced by one efficient piece of machinery.

If you are currently offering water- or air-cooled aftercoolers or closed-loop systems as accessories to your gas compressors, we urge you to consider the Niagara Wet Surface Aftercooler concept as a logical addition to or replacement for these accessory items. The Niagara Aero Aftercooler increases the efficiency of your compressed gas package and thus presents your customer with a superior product.

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