



SHOPTEK

Compact compressed air system.
From 5 to 100 hp



LUBRICATED AIR COMPRESSORS

Sullair's widely recognized model range.
From 5 to 600 hp



OIL-FREE COMPRESSORS

Scroll from 2 to 44 hp
Rotary from 30 to 600 hp



PORTABLE COMPRESSOR

From 185 to 1600 cfm
Also available in Oil-Free 1550 cfm



REFRIGERATED DRYERS

From 5 to 6000 cfm (+35 °F)



ADSORPTION DRYERS

From 5 to 15000 cfm
Dew point -40 °F to -100 °F



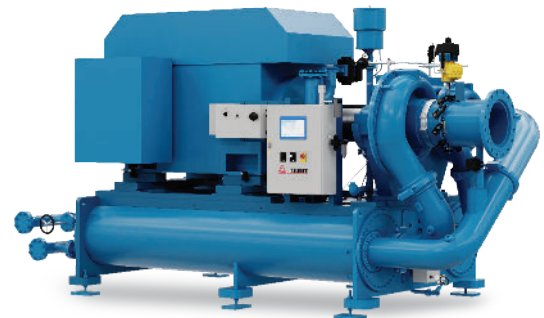
All Weather Air™ Airstations™

Move your air system outside
and save significant floor space.
Up to 40 feet long, from 5 to 600 hp.



**NITROGEN GENERATOR
BREATHABLE AIR, AND CHILLERS**

Say goodbye to expensive Nitrogen supply
contract by Generating your own gas onsite.



OIL-FREE COMPRESSORS

Centrifugal from 250 to 2750 hp



PISTON - PTO - ON DECK

From 1 to 30 hp
Oil free version also available

VACUUM PUMP

Rotary screw Rotary
vane Liquid ring



AIR-TILITY PROGRAM

Simply rent compressed air supply
at a monthly and predictable flat rate.
No upfront Investment is required.
We provide and service the equipment
while you focus on your operations.



LEAK FLOW RATES (Based on flow through an orifice)								
Upstream PSIG	ORIFICE DIAMETER (Inches)				ORIFICE DIAMETER (Inches)			
	1/16"	1/8"	1/4"	1/2"	1/16"	1/8"	1/4"	1/2"
	DISCHARGE, CFM FREE				ANNUAL COST			
80	5	21	85	340	\$ 408	\$ 1,715	\$ 6,943	\$ 27,774
100	6	26	103	411	\$ 490	\$ 2,124	\$ 8,414	\$ 33,574
120	8	30	121	483	\$ 654	\$ 2,451	\$ 9,884	\$ 39,455
*Based on air temperature of 60 °F.					*Based on 4 CFM/HP and 5¢/KWH			

PIPE SIZING MAX. RECOMMENDED CF (Based on 0.5 psi drop per 100' of pipe)								
PSIG	3/4"	1"	1 1/2"	2"	2 1/2"	3"	4"	6"
80	20	40	125	225	375	675	1350	4000
100	22	42	135	250	410	740	1510	4450
120	25	45	145	280	450	810	1640	4900

The flow contribution from a storage tank can be estimated as follows	Metric Conversions
<p>Flow from tank (cfm) = $\frac{\text{Volume} \times (P_1 - P_2)}{\text{Time} \times P_0}$</p> <p>Where: Volume = Volume of the tank in Cubic Feet P₁ = Starting pressure inside the tank (PSIG) P₂ = Ending pressure inside the tank (PSIG) Time = Time of the pressure drop event (minutes) P₀ = Atmospheric pressure (usually 14.7 PSIA)</p> <p>7.4805 gallons/ft³ 0.1337 ft³/gallon</p>	<p>cfm = lpm x 0.0353 lps = cfm x 0.472 1 bar = 14.5 psi kg/cm² = 14.7 psi</p> <hr/> <p>kW = $\frac{0.746 \times \text{bHp}}{\text{Motor Efficiency}}$</p>

Effect of stabilizing Plant Pressure with Intermediate Control	Rule of Thumb Annual Cost
<p>New Flow = Current flow x $\frac{\text{New Set Pressure (psia)}}{\text{Current Average Pressure (psia)}}$</p>	<p>Energy Cost (\$) = HP x 344 (Assuming 8760 Hours/year at 5¢/KWH)</p>

Annual Energy Cost = Kw x cost / kwhrs (incl. Demand Charge) x hours run x avg % compressor load / motor efficiency

$\text{kW (3 Phase)} = \frac{\text{Amps} \times \text{Volts} \times 1.73 \times \text{Power Factor}}{1000}$	$\text{bHP (3 Phase)} = \frac{\text{Amps} \times \text{Volts} \times 1.73 \times \text{Power Factor} \times \text{Motor Efficiency}}{746}$
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Purge Rate for Regenerative Dryers: Heatless 15% / Heated 7% / Blower Purge 2%

RULE OF THUMB FORMULAS FOR ROTARY SCREW AIR COMPRESSOR SYSTEMS

$\text{Power Change} = \frac{5\% \text{ Increase in Power}}{10 \text{ Psig Increase in Pressure}}$	$\text{Power Change} = \frac{0.75\% \text{ Increase in Capacity}}{10 \text{ Psig Decrease in Pressure}}$
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1 Hp ≈ 4 to 5 cfm **Cost to run a compressor \$1.00 per HP per Day**

A 100 cfm compressor (25 hp), ingests approximately 18 gallons of water per day on a 75 °F, 75% RH day.
 A properly operating after cooler and separator will remove approximately 68% of the water ingested by the compressor.
 A properly operating refrigerated dryer and drain will remove 28% of the ingested water leaving approximately 4.0%.
 A properly operating desiccant dryer will remove 32% of the ingested water, leaving approximately 0.3%.