



THE PINE

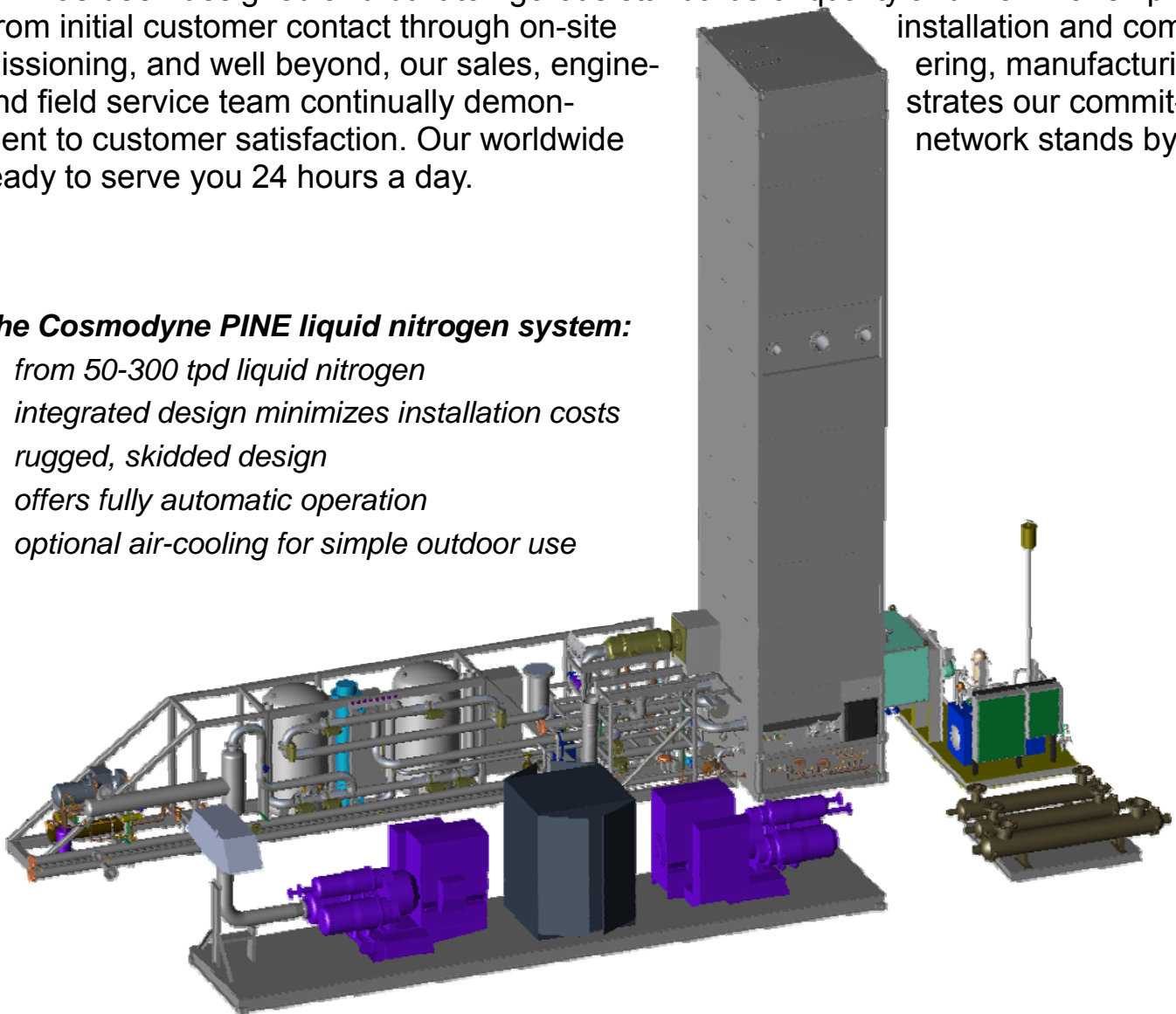
LIQUID NITROGEN SYSTEM

The Cosmodyne PINE liquid nitrogen system offers an inexpensive, easy to install and operate, on-site liquid nitrogen source. The prefabricated skidded design enables rapid deployment and easy relocation.

Cosmodyne is a world leader in the design and manufacture of modular air separation plants with over 400 plants operating worldwide. Since 1958, each Cosmodyne system has been designed and built to rigorous standards of quality and workmanship. From initial customer contact through on-site commissioning, and well beyond, our sales, engineering and field service team continually demonstrate our commitment to customer satisfaction. Our worldwide network stands by, ready to serve you 24 hours a day.

The Cosmodyne PINE liquid nitrogen system:

- ▶ *from 50-300 tpd liquid nitrogen*
- ▶ *integrated design minimizes installation costs*
- ▶ *rugged, skidded design*
- ▶ *offers fully automatic operation*
- ▶ *optional air-cooling for simple outdoor use*



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THE PINE LIQUID NITROGEN SYSTEM

SPECIFICATIONS

PINE	-6	-8	-10
<i>Production</i>			
tons/day	49	86	136
Nm ³ /hr	1,630	2,870	4,530
gal/day	16,000	28,000	44,500
Imp gal/day	13,300	23,400	37,000
<i>Purity</i>			
%	99.999	99.999	99.999
<i>Power</i>			
kW	1,340	2,280	3,525
<i>Specific Power</i>			
kWh/Nm ³	0.8	0.79	0.78

ambient temperature 20°C
relative humidity 50%
elevation 0 meters

APPLICATIONS

- ▶ oil well service
- ▶ semi-conductor industries
- ▶ food freezing
- ▶ metals manufacturing
- ▶ process applications

OPTIONS AND ACCESSORIES

- ▶ fin fan air cooling system
- ▶ high purity nitrogen product
- ▶ installation and commissioning assistance

FEATURES

- ▶ Highly prefabricated skidded modules, complete with interconnecting piping and wiring between modules
- ▶ Cosmodyne PLC control system provides efficient, user-friendly graphic interface for remote, local or unattended operation
- ▶ Automatic control of all primary plant functions
- ▶ State-of-the-art analytical instrumentation package
- ▶ ACD high performance turbocompressors with removable cartridge style rotating elements

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