



Mud Pumps and Mud Pump Parts

TexStar Mud Pump Expendables Are

Rig Approved!

The fluid end expendables we manufacture have been used by hundreds of rigs in the U.S. since 2006.



About TexStar Energy Products

TexStar Energy Products, LLC is a leading manufacturer and supplier of mud pump fluid end expendables, mud pumps and handling tools. From Texas to Alberta, from South America to Middle East, our clients around the world rely on us for the daily mud pump operations.

Our Product Lines

The extensive product lines of mud pump expendables we manufacture and supply include liners, modules and accessories, 7,500 PSI conversion kit, pistons and hubs, valves and seats, rods and clamps, gaskets and seals, crossheads, crosshead slides and crosshead pins, manifolds, pulsation dampeners and much more. All our products are fully exchangeable with OEM parts.

Our Technologies

Latest technologies and equipment are implemented to ensure the consistency of quality and efficiency of productions. Our testing labs are well equipped to conduct various Nondestructive Testing (NDT).

Our Quality

The mud pump expendables we manufacture and supply meet or exceed OEM specifications and API standards. Our manufacturing facility is ISO9001 registered and API-7K certified.

Our Value

When you deal with us, you deal with factory direct. There is no middle man involved. At TexStar, we don't just build parts, we build long term relationships. Our relentless focus on quality, competitive pricing and customer service has won the trust of our customers.



Table of Contents

Liners	4
Pistons	5
7,500 PSI Conversion	6
Modules and Accessories	7
Valves and Seats	8
Rods and Clamps	9
TexStar TSF - 1600 Mud Pumps	10
TexStar TSF - 1600 7,500 PSI Mud Pumps.....	11

Liners

TexStar manufactures chrome alloy sleeved liners, hardened liners, hardened / chrome plated liners and Zirconia liners. TexStar also supplies genuine U.S. made rubber and urethane liner seals. All our liner products are exchangeable with OEM products and meet or exceed API-7K standards.



Chrome Alloy Sleeve Liners

- High Strength forged steel outer hull.
- High Chrome alloy inner sleeve honed to mirror finishes.
- Minimum uniform bore hardness 62 RC.
- HP design to prevent inner sleeve slippage.
- Built tougher to outlast our competitors.

Hardened Liners

- Single high strength forged steel hull construction.
- Inner bore is nitro carburized and quenched to reach hardness of 60 RC.
- Optional chrome plating to reach hardness of 62 RC.
- Corrosion resistance, free deformation.

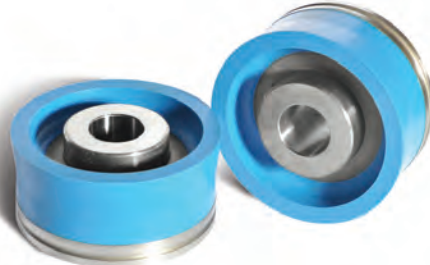
Zirconia Liner

- High strength forged steel outer hull.
- Zirconia inner sleeve.
- Significant longer service and lifetime cost saving.
- Better resistance to heat and corrosion.
- Smoothness of Zirconia inner bore translates into long service lifetime for pistons.

Mud Pump Models	4"	4-1/2"	5"	5-1/2"	6"	6-1/2"	7"	7-1/2"
Continental Emsco F-800 / 1000		AP 05495450	AP 05495500	AP 05495550	AP 05495600	AP 05495650	AP 05495700	
Continental Emsco FB-1300 / 1600	AP 05499400	AP 05499450	AP 05499500	AP 05499550	AP 05499600	AP 05499650	AP 05499700	
Gardner Denver PZ-7	AP PY13940	AP PY13945	AP PY13950	AP PY13955	AP PY13960	AP PY13965	AP PY13970	
Gardner Denver PZ-8/9	AP 05493400	AP 05493450	AP 05493500	AP 05493550	AP 05493600	AP 05493650	AP 05493700	
Gardner Denver PZ-10/11	AP 05496400	AP 05496450	AP 05496500	AP 05496550	AP 05496600	AP 05496650	AP 05496700	
Ideco T-800 / 1000	AP 05502400	AP 05502450	AP 05502500	AP 05502550	AP 05502600	AP 05502650	AP 05502700	
Ideco T-1300 / 1600		AP 05507450	AP 05507500	AP 05507550	AP 05507600	AP 05507650	AP 05507700	
National 8-P-80	AP 05464400	AP 05464450	AP 05464500	AP 05464550	AP 05464600	AP 05464650		
National 9-P-100 / 10-P-130	AP 05465400	AP 05465450	AP 05465500	AP 05465550	AP 05465600	AP 05465650		
National 12-P-160	AP 05466400	AP 05466450	AP 05466500	AP 05466550	AP 05466600	AP 05466650	AP 05466700	
National 14-P-220	AP 05545400	AP 05545450	AP 05545500	AP 05545550	AP 05545600	AP 05545650	AP 05545700	
Oilwell A-850-PT / A-1100-PT	AP 05330400	AP 05330450	AP 05330500	AP 05330550	AP 05330600	AP 05330650	AP 05330700	AP 05330750
Oilwell A-1400-PT / A-1700-PT	AP 05326400	AP 05326450	AP 05326500	AP 05326550	AP 05326600	AP 05326650	AP 05326700	AP 05326750

Pistons

TexStar's urethane bonded pistons are bonded in the U.S. with genuine U.S. made urethane compounds. TexStar's replaceable rubber pistons are assembled with a premium quality U.S. made rubber kit. Our piston hubs are available in size of 4" to 8" in series of A, K, B and L for most duplex and triplex mud pumps.



Urethane Bonded Pistons - Regular

- Single durometer urethane compound.
- Designed for moderate working temperature.
- Perform well in versatile environment.
- Excellent extrusion and chemical resistance.

Urethane Bonded Pistons - High Temp

- Single durometer urethane compound.
- Specially formulated for high working temperature.
- Perform well in versatile environment.
- Excellent extrusion and chemical resistance.

Replaceable Rubber Pistons

- Replaceable rubber kit provides operation cost saving.
- Extended service life.
- Perform well in versatile environment.
- Excellent extrusion and abrasion resistance.

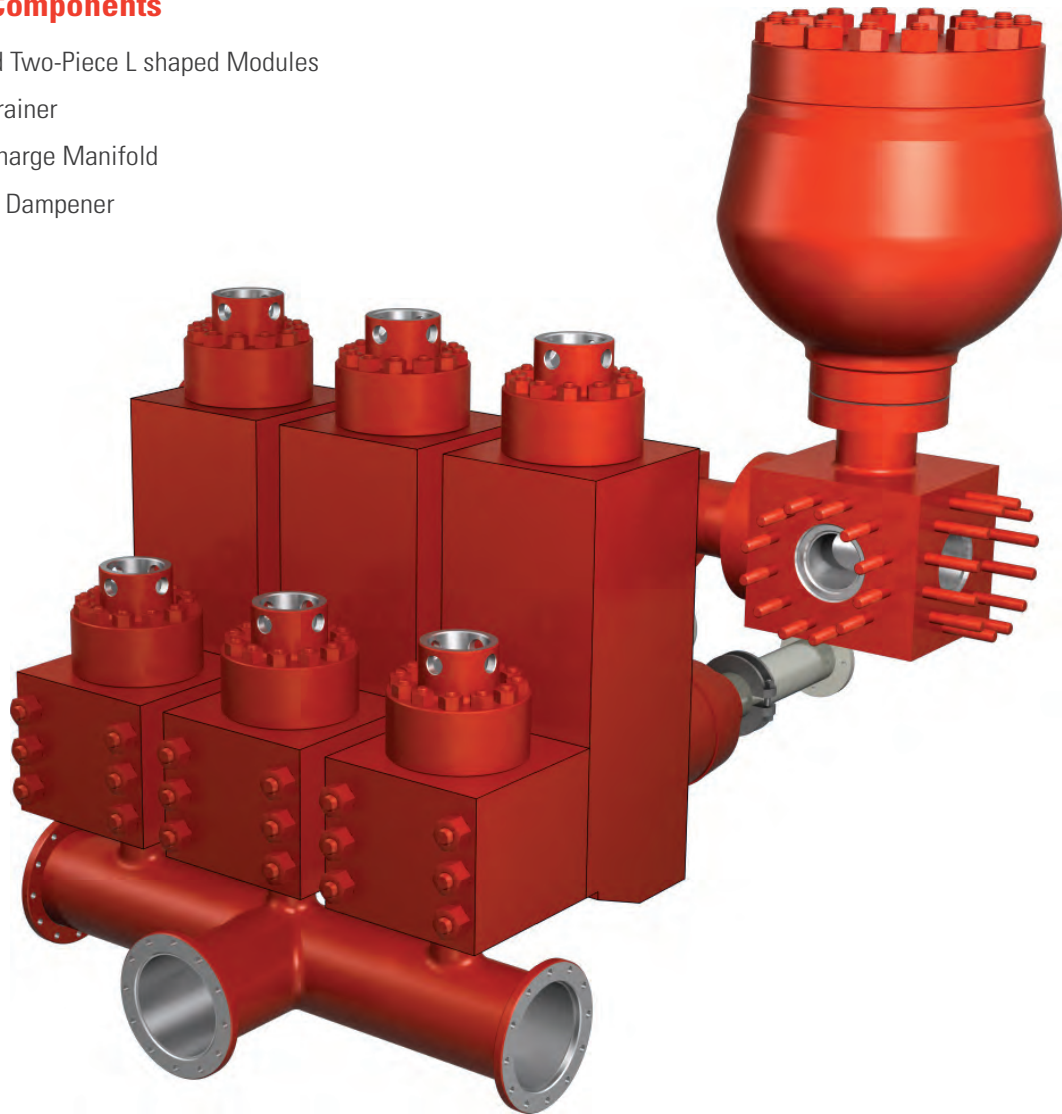
Piston Size	4"	4-1/2"	5"	5-1/2"	6"	6-1/2"	7"
Urethane Bonded - Regular	AP-LL-400	AP-LL-440	AP-LL-500	AP-LL-540	AP-LL-600	AP-LL-640	AP-LL-700
Urethane Bonded - High Temp	AP-HT-400	AP-HT-440	AP-HT-500	AP-HT-540	AP-HT-600	AP-HT-640	AP-HT-700
Replaceable Rubber	AP-12180170	AP-12180196	AP-12180253	AP-12180337	AP-12180394	AP-12180535	AP-12180618
Rubber Kit	AP-15180102	AP-15180144	AP-15180185	AP-15180227	AP-15180268	AP-15180300	AP-15180342

7,500 PSI Conversion Kit

TexStar has the experience, technical know-how and right products to guide you through the 7,500 PSI conversion maze. We have the capacity to supply OEM style complete package or replacement components for many OEM F-1600 7,500 PSI pumps. We can also supply Southwest Style 7,500 PSI conversion kit for F-1600, PZ-10/11, 12-P-160 pumps and many more.

Conversion Kit Components

- Three Fully Dressed Two-Piece L shaped Modules
- Discharge Cross Strainer
- High-Pressure Discharge Manifold
- 7,500 PSI Pulsation Dampener



Pump Model	"Max IHP"	"Max SPM"	Liner Size (in) and Pressure Rating (psi)						
			4"-1/2"	4-3/4"	5"	5-1/2"	6"	6-1/2"	7"
F-1600	1600	120	7500	7449	6723	5556	4669	3978	3430
			Displacement (gpm)						
			297.4	331.4	367.2	444.3	528.8	620.6	719.7
IHP = Input Horse Power			SPM = Stroke Per Minute			GPM = Gallon Per Minute			

Modules and Accessories

TexStar’s modules are made of premium alloy steel with strict forging and heat treatment processes. Every module is precisely made and has gone through rigid inspections. They can come in one or two piece configuration with design pressure up to 7,500 psi.

TexStar’s module accessories offer full lines of cylinder heads, valve lock covers, cylinder head threaded rings, cylinder head plugs, valve cover plugs, upper valve guides, lower valve guides, liner threaded rings, liner locks, wear plates and much more. The parts are precisely made to meet or exceed API-7K standards, and they are 100% exchangeable with OEM parts of all major pump models.



Mud Pump Models	Module with Stud	Module No Studs
Continental Emsco F-800 / 1000	AP 6999-0086-02	AP 6999-0087-02
Continental Emsco FB-1300 / 1600	AP 6316-0357-00	AP 6316-0356-00
Gardner Denver TEE	AP 200PJH029B	AP 200PJH029B-NS
Gardner Denver PAH	AP 200PJH029B	AP 200PJH029B-NS
Gardner Denver PZ-7/8/9	AP 205PZL029D	AP 205PZL029D-NS
Gardner Denver PZ-10/11	AP 202PZL029B	AP 202PZL029B-NS
Ideco T-800 / 1000	AP 551-458	AP 551-458-NS
Ideco T-1000 / 1300	AP 551-122-01	AP 551-122-01-NS
Oilwell A-850-PT / A-1100-PT	AP 10300181	AP 10300181 NS
Oilwell A-1400-PT / A-1700-PT	AP 10300181	AP 10300181 NS

Mud Pump Models	Module with Stud	Module No Studs
National 8-P-80 Discharge	AP 1291280	AP 1291281
National 8-P-80 Suction	AP 1290338	AP 1290339
National 9-P-100 Discharge	AP 1293240	AP 1293241
National 9-P-100 Suction	AP 1290338	AP 1290339
National 10-P-130 Discharge	AP 1290335	AP 1290336
National 10-P-130 Suction	AP 1290338	AP 1290339
National 12-P-160 Discharge	AP 1292240	AP 1292241
National 12-P-160 Suction	AP 1292243	AP 1292244
National 14-P-220 Discharge	AP 1295601	AP 1295602
National 14-P-220 Suction	AP 1295604	AP 1295603

Valves and Seats

TexStar's valves and seats are made of forged alloy steel with deep carburized wear surface. The valves and seats we offer have two major categories, full open valves and seats, 3 web / 4 web valves and seats. Full open valves and seats have many different designs which include uniformly forged FKN and Roughneck Styles.



Full Open Valves and Seats with Bonded Insert

- Forged and heat treated alloy steel valve body and seat.
- Insert permanently bonded to valve body.
- High Temp and High Pressure urethane insert rated 300° and 7,500 PSI available.



Full Open Valves and Seats - Roughneck Style

- Forged and heat treated alloy steel valve body and seat.
- Inertia welded, wing guided valve with full open seat.
- Regular and High Pressure (HP) design.



Full Open Valves and Seats - FKN (G2) Style

- Uniformly forged valve body with full open seat.
- Replaceable insert with urethane bonded to a plate.
- Insert is secured by two half-circle plates and a clip.



Full Open - Regular

- Inertia welded, wing guided valve with full open seat.
- Easy slip-on insert.
- High Temp urethane insert rated 300° available.



4 Web Valves and Seats

- Stem guided valve with 4 web seat.
- Replaceable valve insert with knock-on nut.
- High Temp urethane insert rated 300° available.



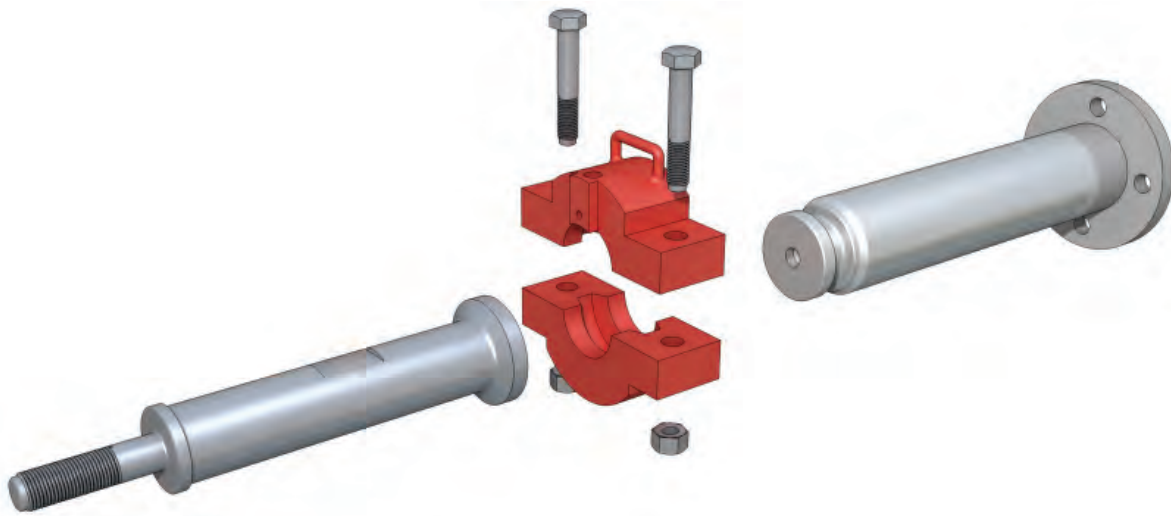
3 Web Valves and Seats

- Stem guided valve with 3 web seat.
- Replaceable valve insert with knock-on nut.
- High Temp urethane insert rated 300° available.

API	Description	Web Valves and Seats		Full Open Valves and Seats			
		3 Web	4 Web	Full Open	Full Open Bonded	Roughneck Style	FKN Style
API-6	Valve Assembly		AP 060152808	AP 6FO-V1	AP 6FO-V2	AP 9700285	AP 1560995
	Seat		AP 061102653	AP 6FO-S1	AP 6FO-S1	AP 9702547	AP 1561380
	Seat for National Pumps		AP 061102604	AP 6FO-S4	AP 6FO-S4	AP 9702555	AP 1561450
	Urethane Insert		AP 062400106	AP 6FO-SI	AP 6FO-SI	AP 9705090	AP 1560587
	Spring		AP 055413389	AP 5710-115	AP 5710-115	AP 8201650	AP 1560701
API-7	Valve Assembly	AP 202PZL482A	AP 060155041	AP 7FO-V1	AP 7FO-V2	AP 9700250	AP 1560985
	Seat	AP 202PZL039	AP 061101507	AP 7FO-S1	AP 7FO-S1	AP 9702504	AP 1561370
	Seat for National Pumps		AP 061102505	AP 7FO-S4	AP 7FO-S4	AP 9702539	AP 1561440
	Urethane Insert	AP 201PZL106	AP 062400338	AP 7FO-SI	AP 7FO-SI	AP 9705228	AP 1560557
	Spring	AP 5710-110	AP 055413397	AP 5710-115L	AP 5710-115L	AP 8201684	AP 1560702

Rods and Clamps

TexStar's piston rods and pony rods are made of premium quality, heat treated alloy steel. The surfaces of our pony rods are Chrome plated and polished to mirror-like finishes. TexStar's piston rods and pony rods are precisely made and treated with excellent abrasion and corrosion resistance. TexStar's rod clamps are made of premium quality alloy steel. The rod clamps are machined to ensure perfect alignment and tight grip of piston rods and pony rods.



Mud Pump Models	Extension Rod	Piston Rod	Sub Rod	Rod Clamp	Pony Rod Baffle	Pony Rod Seal
Continental Emsco F-800	AP 07913075	AP 1551701		AP PP600800	AP 6320-0028-00	AP 7602-2132-74
Continental Emsco F-1000	AP 07913070	AP 1551702		AP PP601000	AP 6319-0070-00	AP 7602-2132-75
Continental Emsco FB-1300 / 1600	AP 07913077	AP 1551703		AP PP601316	AP 6316-0093-00	AP 7602-2132-76
Gardner Denver PZ-8 Clamp	AP 07913056	AP 1551510		AP PP601022	AP PZ-840	AP 2011872
Gardner Denver PZ-8 Thread	AP 07913063	AP 1551512			AP PZ-840	AP 2011872
Gardner Denver PZ-9 Clamp	AP 07913065	AP 1551510		AP PP601022	AP PZ-840	AP 2011872
Gardner Denver PZ-9 Thread	AP 07913076	AP 1551512			AP PZ-840	AP 2011872
Gardner Denver PZ-10/11 Clamp	AP 07913078	AP 1551719		AP PP601023	AP PZ-840	AP 2011872
Gardner Denver PZ-10/11 Thread	AP 07913076	AP 1551512			AP PZ-840	AP 2011872
Ideco T-800	AP 1681516	AP 1551717		AP PPT604800	AP 07208501	AP IP-805
Ideco T-1000	AP 1681540	AP 1551717		AP PPT604800	AP 07208501	AP IP-805
Ideco T-1300 / 1600	AP 07913081	AP 1551715		AP PPT604130	AP 07208502	AP IP-804
National 8-P-80	AP 1602594	AP 1291277	AP 1291276	AP 1291085	AP 1291194	AP 1291182
National 9-P-100	AP 1681460	AP 1293147	AP 1293146	AP 1293085	AP 1293194	AP 1293182
National 10-P-130	AP 1602560	AP 1290347	AP 1290346	AP 1290085	AP 1290194	AP 1283099
National 12-P-160	AP 1602586	AP 1292147	AP 1292146	AP 80701028	AP 1292194	AP 1292182
National 14-P-220	AP 1295083	AP 1295147	AP 1295146	AP 1295085	AP 1292194	AP 1295182
Oilwell A-850-PT / A-1100-PT	AP 10300142	AP 20150123	AP 20150125	AP 80701024	AP 20-100-008	AP 20-100-015
Oilwell A-1400-PT / A-1700-PT	AP 10300142	AP 20150123	AP 20150125	AP 80701021	AP 20-100-008	AP 20-100-015

TexStar TSF - 1600 Mud Pumps

TSF-1600 mud pump is a high quality triplex single acting piston pump. Based on the proven design of Continental Emsco FB-1600 model, F-1600 mud pump is one of the most accepted and widely used mud pumps in the world.

Key Specification

Max Liner Size:	7" x 12"
Stroke Rating:	120 SPM
Power Rating:	1,600 HP
Gear type:	Herringbone
Gear Ratio:	4.206:1
Lubricating:	Forced and Splashing
Suction Inlet:	12"
Discharge Outlet:	5-1/8" - API-5K
Pinion Shaft Dia:	8-1/2"
Valve Pots:	API #7
Approx Weight:	27,000 KG



Power End

- High strength alloy steel frame provides high rigidity and free distortion.
- Forged, alloy steel pinion shaft with 4.206:1 Herringbone gear.
- One-piece alloy steel crankshaft.
- Full roller bearing construction.
- Forged, alloy steel pinion shaft.
- Forced and splashing oil lubrication powered by an geared oil pump.
- Cast crosshead and guide provide excellent abrasion resistance and long service life.

Fluid End

- Three one-piece forged alloy steel modules, max. pressure 5,000 PSI.
- Liner Wear plate design improves service life of modules.
- Liner and piston are cooled and lubricated by water spray system
- Valve over valve with API #7 valves and seats.
- Front mount discharge manifold connected with 5-1/8" API-5K flange.
- 20 Gallon, 5,000 PSI Pulsation Dampener.
- 5,000 PSI, 5-way discharge strainer cross with RTJ connection.

TexStar TSF - 1600 7,500 PSI Mud Pumps

TexStar's TSF-1600 7,500 PSI mud pump provides high-octane performance for today's increasingly extreme drilling conditions. 7,500 PSI conversion upgrade including three Southwest style 2-piece "L" shaped modules, discharge cross strainer, high-pressure discharge manifold and 7,500 PSI pulsation dampener is incorporated to ensure higher working pressures, easier maintenance and less down time.

Key Specification

Max Liner Size:	7" x 12"
Stroke Rating:	120 SPM
Power Rating:	1,600 HP
Gear type:	Herringbone
Gear Ratio:	4.206:1
Lubricating:	Forced and Splashing
Suction Inlet:	12"
Discharge Outlet:	5-1/8" - API-10K
Pinion Shaft Dia:	8-1/2"
Valve Pots:	API #6
Approx Weight:	28,500 KG



Power End

- High strength alloy steel frame provides high rigidity and free distortion.
- Forged, alloy steel pinion shaft with 4.206:1 Herringbone gear.
- One-piece alloy steel crankshaft.
- Full roller bearing construction.
- Forged, alloy steel pinion shaft.
- Forced and splashing oil lubrication powered by an geared oil pump.
- Cast crosshead and guide provide excellent abrasion resistance and long service life.

Fluid End

- Three 2-piece "L" shape forged alloy steel modules, max. pressure 7,500 PSI.
- Liner Wear plate design improves service life of modules.
- Liner and piston are cooled and lubricated by water spray system
- API #6 valves and seats.
- Rear mount discharge manifold connected with 5-1/8" API-10K flange.
- 20 Gallon, 7,500 PSI Pulsation Dampener.
- 7,500 PSI, 6-way discharge strainer cross with BX connections.



2523 Fairway Park Drive, Suite 520, Houston, Texas 77092
Office: 281-310-5700 | Fax: 281-955-9488 | web: www.TexStarep.com

DISCLAIMER: TexStar Energy Products (TexStar) is an independent seller of replacement parts. TexStar is neither a licensee, nor is it affiliated with any of the original equipment manufacturers named herein. The manufacturers names, trademarks, or part numbers used herein are solely for identification purposes.