

### Pumping & Stimulation



Tanks & Trailers



Mobile Rigs



**Production Equipment** 



### **ENERGY INDUSTRY EXPERTS.**

- 58 years of manufacturing severe duty engineered equipment
- 30+ years of oil & gas manufacturing experience
- 25 years experience in unique custom engineered pumping systems
- U.S. owned and operated, founded in 1963









# A LEGACY OF PERFORMANCE

# DESIGNED TO PERFORM AND BUILT TO LAST.

- 20+ Years 3,000+ Systems
- Reduced Op Ex Through Innovation
- Field Proven Reliability
- Comprehensive Parts and Service Network
- Full Automation
- ISO 9001-2016
- ASME R, U
- CWI
- Portable Plants
- Skid Pumps
- Piping
- Packaging
- FAT Testing
- SS Expertise
- API12F Production Tanks









### **DRAGON PES LOCATIONS**

### **TEXAS:**

- Liberty Manufacturing of ASME Code Vessels, Compressor Packaging, Parts & Field Service
- Odessa Pump Packaging, Parts, & Field Service
- San Angelo Manufacturing of API 12F Steel Production Tanks, Parts, & Field Service

### **COLORADO:**

Weld County – Parts & Field Service

### NORTH DAKOTA:

Williston - Parts, & Field Service

### OKLAHOMA:

Springer – Manufacturing of API 12F Steel Production Tanks, Parts, & Field Service

### UTAH:

Provo – Manufacturing of ASME Code Vessels & LPG/NGL Tanks, Parts & Field Service

### **NEW MEXICO:**

Hobbs – Parts & Field Service

### **WYOMING:**

- Casper Pump Packaging, Vessel Packaging, LACT Unit Packaging, SWD Packaging & Design, Parts, & Field Service,
   Manufacturing of API 12F Steel Production Tanks, Parts, & Field Service
- Edgerton Parts & Field Service



U.S. OWNED AND OPERATED. FOUNDED IN 1963. 800-231-8198 | WWW.DRAGONPRODUCTSLTD.COM

# **QUICK REFERENCE**

### HCP Pump SWD Plants with Options

Capacity (bpd)	5,000	12,000	20,000		
Drawing #	DFT-SWD-05-810	DFT-SWD-12-810	DFT-SWD-20-810	Manufacturer	Options
Horizontal Centrifugal Pump (qty)	1	1	2	Summit	Remote Telemetry
Design Pressure (psi)	2,220	2,220	2,220		Redundant Pump / Filters
Motor Horsepower	350	700	700		LEL, H2S Detection
Charge Pump	2 X 3 X 8 25 hp	3 X 4 X 8 50 hp	3 X 4 X 13 75 hp	Peerless	Automated Bypass
Motor Horsepower	25	40	60		Stainless Steel Piping
Filter Cannister (bag qty.)	3 (single vessel)	6 (single vessel)	8 (single vessel)	FSI	Bridge Crane
Skid Size	12' X 50'	16' X 60'	16' X 65'		Large Capacity Filtration
Plant Weight (lbs /est)	53,000	62,000	71,000 / 22,000 (2 Modules)		
Programming, PLC, HMI	Yes	Yes	Yes	A&E	



Standard Plant Includes: Carbon Steel ANSI 900 Welded and Flanged Piping / Class 1, Division 2 Electrical Classification

# **QUICK REFERENCE**

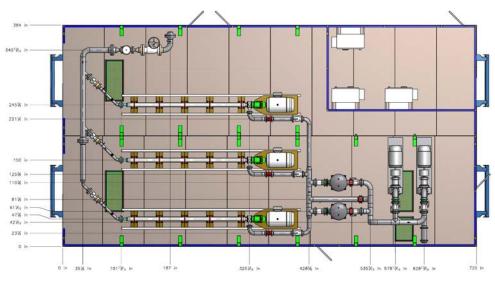
### PD Pump SWD Plants with Options

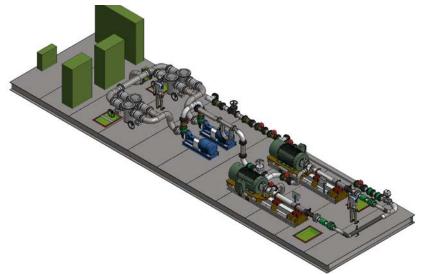
Capacity (bpd)	5,000	12,000	20,000		
Drawing #	DFT-SWD-05-810	DFT-SWD-12-810	DFT-SWD-20-810	Manufacturer	Options
Positive Displacement Pump (qty)	1	2	3	Weatherford	Remote Telemetry
Design Pressure (psi)	2,220	2,220	2,220		Redundant Pump / Filters
Motor Horsepower	250	300	300		LEL, H2S Detection
Charge Pump	2 X 3 X 8 25 hp	3 X 4 X 8 50 hp	3 X 4 X 13 75 hp	Peerless	Automated Bypass
Motor Horsepower	25	40	60		Stainless Steel Piping
Filter Cannister (bag qty.)	3 (single vessel)	6 (dual vessel)	8 (dual vessel)	FSI	Bridge Crane
Skid Size	12' X 50'	16' X 60'	16' X 65'		Large Capacity Filtration
Plant Weight (lbs /est)	56,000	64,000	76,000 / 22,000 (2 Modules)		
Programming, PLC, HMI	Yes	Yes	Yes	A&E	



Standard Plant Includes: Carbon Steel ANSI 900 Welded and Flanged Piping / Class 1, Division 2 Electrical Classification

# STANDARDIZED / MODULAR SWD PLANTS. 1,000 TO 20,000 BPD







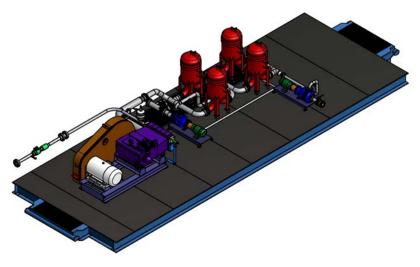




# STANDARDIZED / MODULAR PD PLANTS. 1,000 TO 20,000 BPD



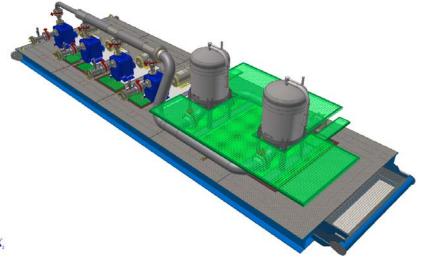








# TRUCK UNLOADING STATIONS



Self Priming High Capacity Pumps





Coriolis Metering

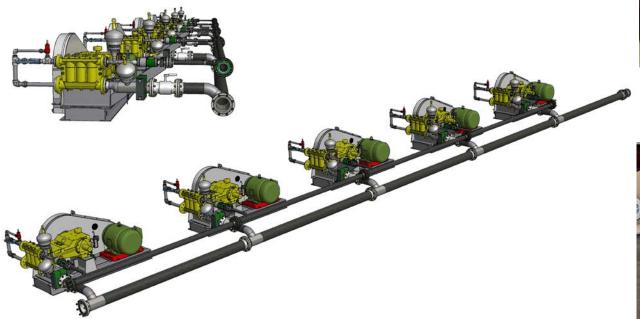


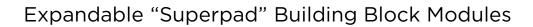
4 Station Unload System



# **MIDSTREAM PUMP SYSTEMS**

### PD PUMP PIPELINE TRANSFER - MIDSTREAM











### **MIDSTREAM INNOVATION**

### PLUNGER / PACKING ELIMINATED

- Proven Technology Reducing Op-Ex by 50%
- Eliminating Environmental Discharge

Using a Ceramic liner and a proprietary Kevlar (compound) molded cup we have reduced consumable parts to (1) one piece versus 9-11 components on conventional plunger systems. Field repair is reduced by 80%

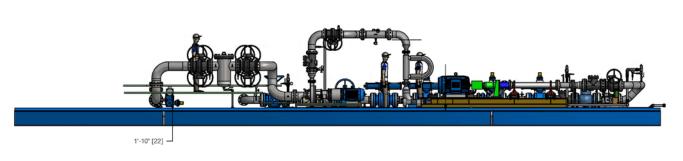
- Lubrication is no longer required
- Currently Available for All 5" Stroke Pumps





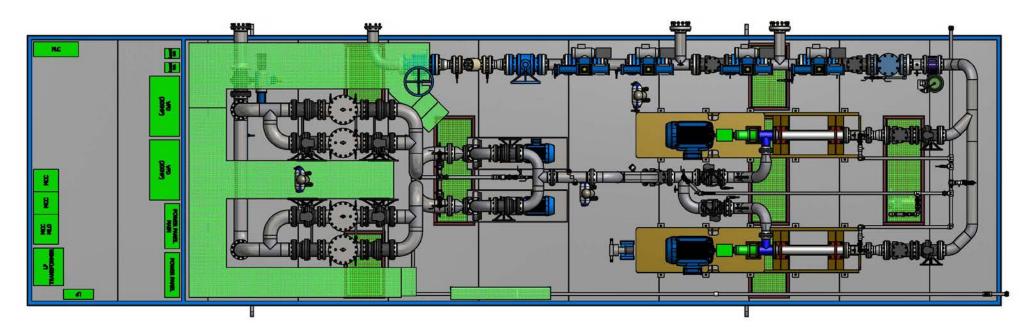


# **MIDSTREAM PIPELINE BOOSTER STATION**





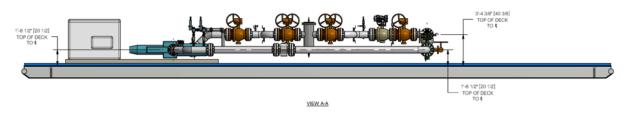
30,000 bpd, Redundant Pumps



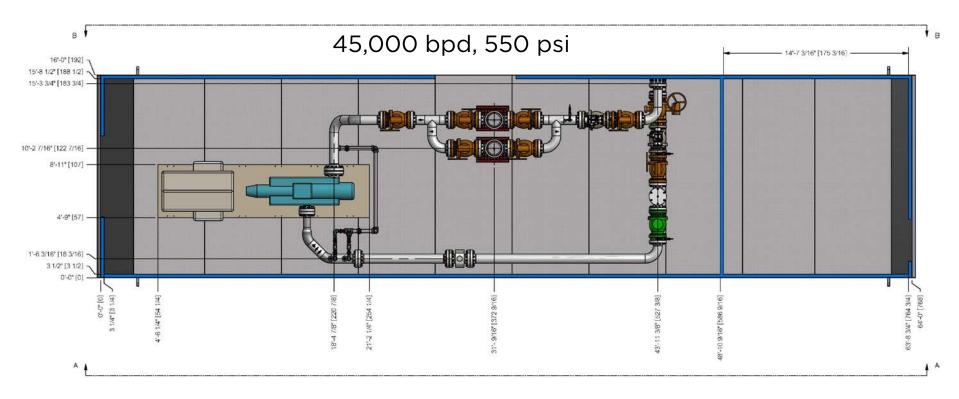
Horizontal Centrifugal Pump



# **MIDSTREAM PIPELINE BOOSTER STATION**









API 610 Centrifugal Pump

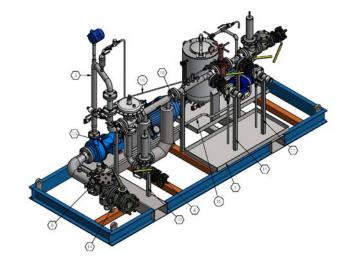
# **CONVENTIONAL LACT**

# CENTRIFUGAL, PROGRESSIVE CAVITY AND GEAR PUMP





- Standardized Designs 2" to 4"
- Flow Rates 2,000 to 31,000 bpd
- All Pressure Ranges
- Portable Open or Enclosed Skids
- Prewired and Programmed, Turn Key Tested Systems
- Any Customer Preference for Instruments and Meters
- Truck and Pipeline Applications





# **INNOVATION LACT**

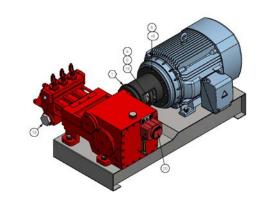
### PATENT PENDING TECHNOLOGY POSITIVE DISPLACEMENT PUMPS

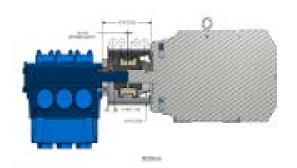
Raise overall efficiency to 96% and minimize down time by eliminating legacy stuffing box designs. Maintenance is limited to simple oil changes, and piston cup wear.

Our valve design and piston design has eliminated scheduled and unscheduled expendable op-ex.

Proven research on all phases of product development, including field testing with Coriolis Meter proving.

Collaboration with FMC to develop a state-of-the-art factory tested API 674 design while using ISO 9001 quality control standards.









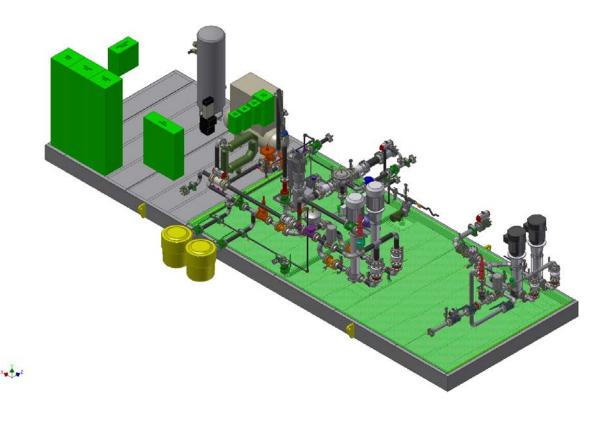
# **MULTI PURPOSE LACT**

### 11,000 BPD DESIGN WITH 10:1 TURN DOWN RATIO

Combine multiple processes into a single skid and building, to offer a smaller overall foot print and minimize mechanical and electrical field interconnect.

### **OPTIONS:**

- PD / Centrifugal Boost
- Gas Metering
- Water Transfer
- Recycle
- Air Compressor
- MCC / Site Power





# **SYSTEMS FABRICATION**











Custom
Engineered and
Fabricated
Pump Packages





### $\bigcirc$

### **PRODUCTION PUMPS AND PARTS**

### **CENTRIFUGAL**

### ANSI OEM Distributorships Stocking Pumps, Motors, Parts

- Williston, Casper, Odessa, Beaumont
- Pump Skids
- Repair Parts
- Application / Design
- Field Services













### **CENTRIFUGAL**

OEM TruFlo / XTF API, Split Case, ANSI, Mag Drive











### **CENTRIFUGAL**

Cornell
Stocking Distributor / Dragon Industrial Water
Transfer Systems.











### HORIZONTAL CENTRIFUGAL

### **OEM Slyder & Summit**

Experienced Field Services for Support Ranges

•	500 to 4,500	bpd	(15-130gpm)
•	2,700 to 6,000	bpd	(80-175gpm)
•	7,500 to 35,000	bpd	(145-730gpm)
•	16,000 to 28,000	bpd	(460-820gpm)

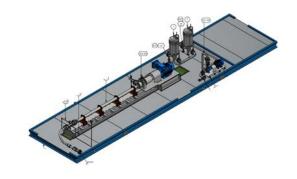
26,000 to 50,000 bpd (760-1200gpm)













### **RECIPROCATING**

### OEM

### Stocking Pumps, Motors, Parts

- Williston, Casper, Odessa, Beaumont
- Pumps, Base Skids
- Repair Parts
- Application / Design
- Field Services















### $\bigcirc$

# **PRODUCTION PUMPS AND PARTS**

### **PROGRESSIVE CAVITY**

OEM Continental and Seepex Spare Parts, Service, Application















### **GEAR PUMPS AND PARTS**







Factory Authorized Repair Center

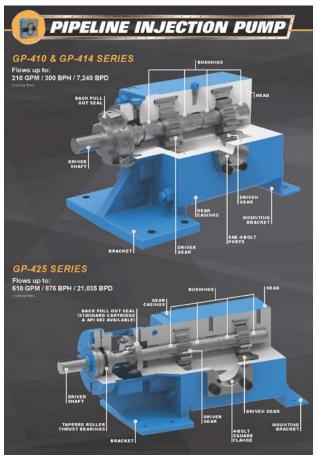












# **PUMP COMPARISON CHART**

Pump Type	Reciprocating Positive Displacement	External Gear	External Gear	External Gear	Centrifugal	Progressive Cavity
Manufacturer	FMC	Viking	Northern	Roper	ANSI	Continental or Moyno
Limited In Low Lubricity Application	No	Yes	Yes	Yes	No	Yes
Longevity	Yes	No	No	No	Yes	No
Repair or Maintenance \$	Very Low	High	High	Low	Low	High
Repair Downtime	Very Low	High	High	Low	Low	High
Pump Efficiency	90%	85%	85%	85%	65%	85%
Temp or Viscosity Sensitive	Low	Med	Med	Med	High	Med
Increasing Pipeline Pressure	Broad Range	Limited Range	Limited Range	Limited Range	Mid Range	Narrow Range
Capital Expenditure	100%	30%	100%	30%	75%	65%
Operating Expenditure	Low	Med	Med	Med	Low	High



### **EXPERIENCE-INNOVATION-RELIABILITY**

World Leader In Chemical EOR

47 Automated Plants Deployed Worldwide



Polymer

Alkaline-Surfactants

Colloidal Dispersion / Biopolymer

Process
Design

Solids
Modeling

Electrical
and
Automation

Particle
Reduction

•Rapid Hydration
•100% Efficiency

Progressive
Tank Systems

•High Volume
•Gas Blanketing

•Loss In Weight
•Mechanical and
Pneumatic
Conveyance

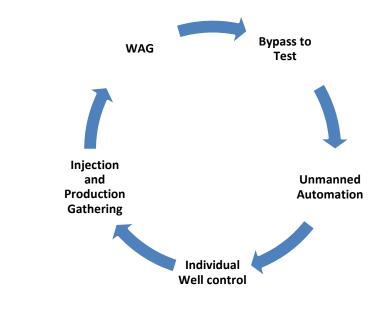


# CO2 EOR

### **EXPERIENCE-INNOVATION-RELIABILITY**

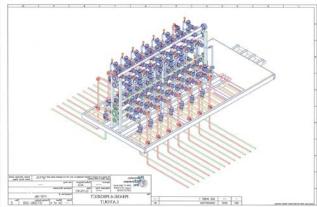
World Leader In CO2 EOR

71 Automated Plants deployed in the USA











# **EOR**

### **EXPERIENCE-INNOVATION-RELIABILITY**





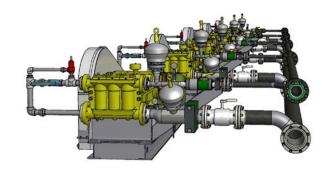




### **CUSTOMER SERVICE / SUPPORT**

### PARTS AND SERVICE ARE SIMPLIFIED

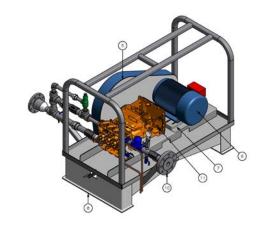
- Our technicians are trained and experienced with pump design, application and systems.
- Dragon Consumable repair inventory is seamless, predictable and repeatable.





### **DELIVERY BASED ON FIELD DEVELOPMENT**

 We maintain inventory, including a wide range of major equipment components to to meet our customers needs and schedules.





# **PRODUCTION TANK ACCESSORIES**

### **TANK PADS**

### **TUFFBASE TANK PADS**

- 12' TuffBase for 300 and 400 BBL 4 piece
- HD 12' TuffBase 500 BBL 4 piece
- 15'6" TuffBase 500 and 750 BBL- 7 piece
- HD 15'6" TuffBase for 1,000 BBL- 7 piece

### **POLYSTYRENE 2-Piece with Liner**

- 10'x6" with Tank Pad Liner: HDTE, 40mil 10' diameter
- 12'x6" with Tank Pad Liner: HDTE, 40mil 12' diameter
- 15'6"x6" with Tank Pad Liner: HDTE, 40mil 16' diameter

### **GRADE BAND TANK RINGS**

- 5'x8", GALV 11 per 15'6" tank
- 5'x8", GALV 9 per 12' tank









# PRODUCTION TANK CATWALKS/PLATFORMS

### CATWALKS/PLATFORMS

Dragon offers a wide array of custom and standard Production Tank Catwalk/Platform designs with full installation and support.

- Stairways
- Walkways
- Extensions
- Support Towers
- Y-Braces

We stock inventory at 7 locations across the U.S.









**LARGEST INVENTORY IN NORTH AMERICA!** 

# **PRODUCTION TANKS / SPECIFICATIONS**



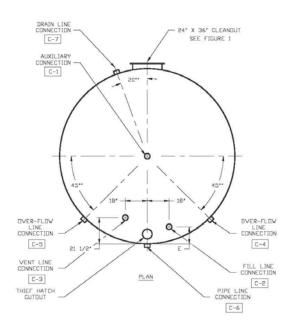


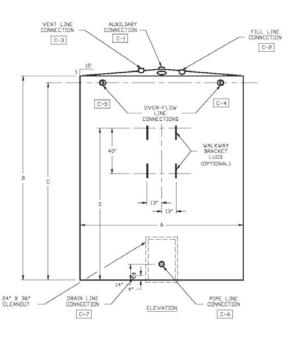




# **PRODUCTION TANKS / SPECIFICATIONS**

NOMINAL CAPACITY	DESIGN PRESSU OZ. PER SQUARE INCH PRESS. VACUUM	WORKING CAPACITY BBL	OUTSIDE DIAMETER	HEIGHT	APPROX. WEIGHT	SITE OF CONNECTIONS C-1, C-2, C-3, C-7	SITE OF CONNECTIONS C-4, C-5, C-6
100BBL	16 1/2	79	9' 6"	8'	3,250lbs	3	3
200BBL	16 1/2	166	12'	10'	5,025lbs	3	4
210BBL	16 1/2	200	10'	15'	5,200lbs	3	4
300BBL	16 1/2	266	12'	15'	6,490lbs	4	4
400BBL	16 1/2	366	12'	20'	8,000lbs	4	4
500BBL	16 1/2	466	12'	25'	9,350lbs	4	4
500BBL	8 1/2	479	15' 6"	16'	9,960lbs	4	4
750BBL	8 1/2	746	15' 6"	24'	16,750lbs	4	4
1000BBL	8 1/2	922	15' 6"	30'	22,500lbs	4	4







# **GUNBARREL TANKS / SPECIFICATIONS**

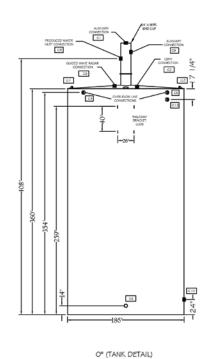


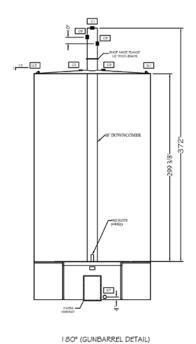


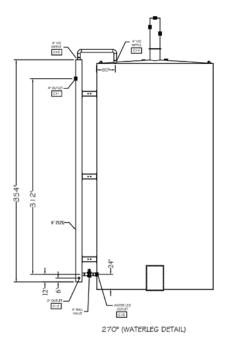


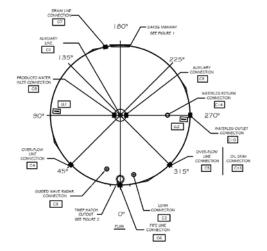
# **GUNBARREL TANKS / SPECIFICATIONS**

	NOZZLE :	SCHEDUL	E	
ITEM	DESCRIPTION	QTY	SIZE	MATERIAL
C1	AUXILIARY LINE	1	4"	3000# COUPLING
C2	LSHH CONNECTION	1	4"	3000# COUPLING
C3	GUIDED WAVE RADAR	1	4"	3000# COUPLING
C4	OVERFLOW	1	4"	3000# COUPLING
C5	OVERFLOW	1	4"	3000# COUPLING
C6	PIPE LINE	1	4"	3000# COUPLING
C7	DRAIN LINE	1	4"	3000# COUPLING
C8	PRODUCED WATER INLET	1	4"	3000# COUPLING
C9	AUXILIARY LINE	1	4"	3000# COUPLING
C10	WATERLEG OUT	1	4"	3000# COUPLING
C11	OUTLET	1	4"	3000# COUPLING
C12	OUTLET	1	2"	3000# COUPLING
C13	OIL SKIM	1	4"	3000# COUPLING
C14	WATER LEG RETURN	1	4"	VIC NIPPLE
C15	WATER LEG RETURN	1	4"	VIC NIPPLE
TH	THIEF HATCH	1	8"	4.00Z / 0.4VAC
MW	MANWAY	1	24X36	1 - PIECE API STD
LL1/2	LIFT LUG	2	-	1/4 PL / 5/8 PL











# **HDPE POLY PIPE**

- Manufactured with bimodal, high molecular weight PE4710 resin
- Meets ASTM F2619 and F714 standards
- Applications oil and gas gathering,
   crude transmission, saltwater disposal.
- 2" to 16" IPS Pipe Diameter; 7 to 17 DR
- 2" to 4" Coil Sizes; 6" to 16" in 40' or 50'Stick Length





### STANDARD TRUCKLOAD QUANTITIES

### >> COILED PIPE

Pipe Size	Pipe DR	Coil Length	Coils per Truck	Footage per Truck
2" IPS	7-17	2000'	16	32,000
3" IPS	7-17	1000'	13	13,000
4" IPS	7-17	800'	12	9,600

### >> PIPE JOINTS (50' STANDARD)

Pipe Size	Pipe DR	Joints per Bundle	Bundles per Truck	Footage per Truck	
	7	13	9	5,850	
6" IPS	9	13	11	7,150	
0 123	11	20	9	9,000	
	17	20	10	10,000	
	7	9	8	3,600	
8" IPS	9	9	10	4,500	
	11-17	9	12	5,400	
	7	N/A	45 joints	2,250	
10" IPS	9	N/A	54 joints	2,700	
	11-17	N/A	72 joints	3,600	
	7	N/A	32 joints	1,600	
12" IPS	9	N/A	40 joints	2,000	
12 125	11	N/A	48 joints	2,400	
	17	N/A	56 joints	2,800	
	7	N/A	21 joints	1050	
16" IPS	9	N/A	24 joints	1200	
	11-17	N/A	30 joints	1500	

<sup>\*2&#</sup>x27;-4" IPS joints and custom joint and coil lengths available by special order.

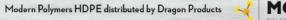
# **HDPE POLY PIPE**

# PRESSURE PIPE OFFERINGS



PE4710 Pre	ssure Rating*		333 psi	317 psi	250 psi	200 psi	160 psi	138 psi	125psi
IPS SIZE	AVG OD (in)	DR	7	7.3	9	n	13.5	15.5	17
		Min wall, in	0.339	0.325	0.264	0.216	0.176	0.153	0.140
2	2.38	Avg ID, in	1.656	1.685	1.816	1.917	2.002	2.050	2.079
		Weight, lb/ft	0.950	0.920	0.770	0.642	0.534	0.470	0.431
	SET WEST	Min wall, in	0.500	0.479	0.389	0.318	0.259	0.226	0.206
3	3.50	Avg ID, in	2.440	2.484	2.676	2.825	2.950	3.021	3.064
		Weight, lb/ft	2.060	1.990	1.664	1.395	1.160	1.020	0.940
		Min wall, in	0.643	0.616	0.500	0.409	0.333	0.290	0.265
4	4.50	Avg ID, in	3.137	3.193	3.440	3.633	3.793	3.885	3.939
		Weight, lb/ft	3.402	3.290	2.751	2.310	1.920	1.687	1.550
		Min wall, in	0.946	0.908	0.736	0.602	0.491	0.427	0.390
6	6.625	Avg ID, in	4.619	4.701	5.064	5.348	5.585	5.719	5.799
	No.	Weight, lb/ft	7.374	7.130	5.963	5.000	4.152	3.656	3.360
		Min wall, in	1.232	1.182	0.958	0.784	0.639	0.556	0.507
8	8.625	Avg ID, in	6.013	6.120	6.593	6.963	7.271	7.445	7.549
	/ [ ] 自由	Weight, lb/ft	12.498	12.070	10.110	8.470	7.040	6.197	5.690
		Min wall, in	1.536	1.473	1.194	0.977	0.796	0.694	0.632
10	10.75	Avg ID, in	7.494	7.628	8.218	8.678	9.062	9.280	9.409
		Weight, lb/ft	19.416	18.750	15.700	13.160	10.932	9.626	8.834
		Min wall, in	1.821	1.747	1.417	1.159	0.944	0.823	0.750
12	12.75	Avg ID, in	8.889	9.047	9.747	10.293	10.748	11.006	11.160
		Weight, lb/ft	27.312	26.380	22.085	18.510	15.380	13.530	12.430
		Min wall, in	2.000	1.918	1.556	1.273	1.037	0.903	0.824
14	14	Avg ID, in	9.760	9.934	10.702	11.302	11.801	12.085	12.254
		Weight, lb/ft	32.930	31.810	26.630	22.320	18.540	16.310	14.983
		Min wall, in	2.286	2.192	1.778	1.455	1.185	1.032	0.941
16	16	Avg ID, in	11.154	11.353	12.231	12.916	13.487	13.812	14.005
		Weight, lb/ft	43.010	41.550	34.780	29.150	24.220	21.300	19.570

<sup>\*</sup>Pressure rating based on water at 73° F | Custom sizes available by special order.





# **CASPER, WYOMING**









800-231-8198 WWW.DRAGONPRODUCTSPES.COM - SHOP PARTS

