

# FlexLift Low-Profile Pumping Units



# FlexLift Low-Profile Pumping Units

## Main Specifications

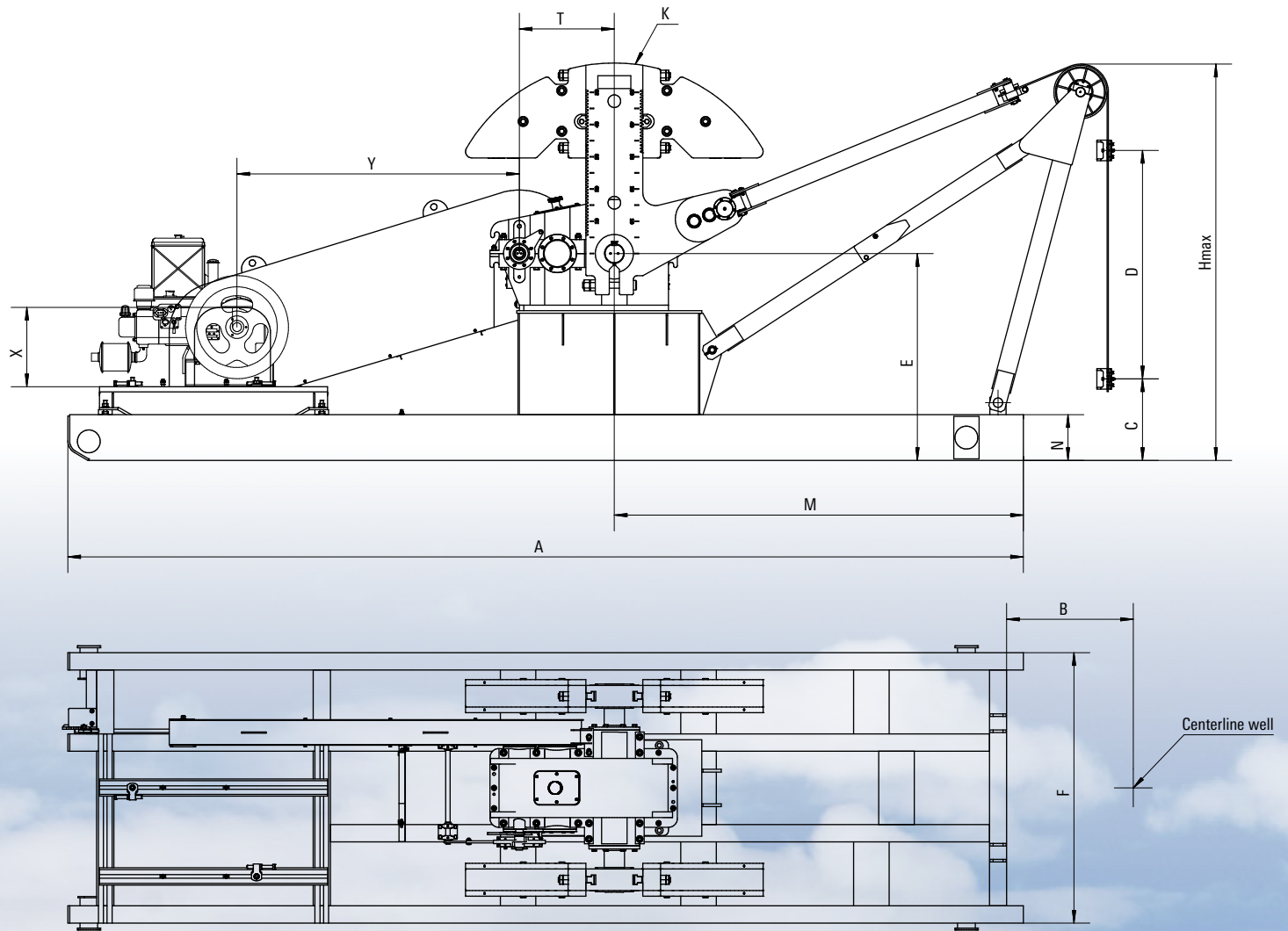
		Model					
		F114D-173-64	F160D-173-74	F228D-246-86	F320D-246-86	F320D-256-100	
<b>Basic parameters</b>	Rated polished rod capacity, lbf	17,300	17,300	24,600	24,600	25,600	
	Designated stroke length, in	64	74	86	86	100	
	Running speed, rpm	12	12	12	12	12	
	Balance type	Crank balanced	Crank balanced	Crank balanced	Crank balanced	Crank balanced	
	Crank direction	Clockwise	Clockwise	Clockwise	Clockwise	Clockwise	
<b>Gear reducer</b>	Rated torque, lbf.in	114,000	160,000	228,000	320,000	320,000	
	Model	114D	160D	228D	320D	320D	
	Gear type	Involute	Involute	Involute	Involute	Involute	
	Gear ratio	29.818	28.506	28.87	28.807	28.807	
	Center range, in	25.59	29.53	33.46	37.40	37.40	
	Center height, in	16.73	17.72	19.69	23.23	23.23	
	Oil storage quantity, galUS	29	37	48	75	75	
	Lubricant	ISO VG 150 gear lubricant in winter, ISO VG 220 gear lubricant oil in summer					
	Sheave diameter, in	30	30	36	44	44	
	Sheave groove type	3C	4C	4C	5C	5C	
<b>Balance assembly</b>	Counterweight, lbm	1,103 × 4	1,103 × 4	1,764 × 4	1,764 × 4	1,764 × 4	
	Auxiliary weight, lbm	364 × 8	364 × 8	441 × 8	441 × 8	441 × 8	
	Weight of crank, lbm	2,217 × 2	2,459 × 2	3,485 × 2	3,485 × 2	3,935 × 2	
	Crank pin bore position, in	Stroke 1	32.01	37.01	42.99	42.99	50.00
		Stroke 2	26.89	31.89	35.51	35.51	42.52
		Stroke 3	21.77	26.77	28.03	28.03	35.04
	Stroke length, in	Stroke 1	64.00	74.00	85.98	85.98	100.00
Stroke 2		53.80	63.80	71.02	71.02	85.00	
Stroke 3		43.50	53.50	56.06	56.06	70.00	
<b>Belt</b>	Length × width × thickness, in	116.93 × 14.96 × 0.394	133.86 × 14.96 × 0.394	146.46 × 20 × 0.394	146.46 × 20 × 0.394	167.52 × 20 × 0.394	
<b>Other</b>	Overall dimensions length × width × height, in	TH base	–	–	–	–	
		WL base	305.9 × 108.7 × 110.9	327.0 × 117.24 × 122.9	367.32 × 124.80 × 138.27	367.32 × 124.80 × 138.27	392.24 × 124.80 × 156.3

# FlexLift Low-Profile Pumping Units

## Dimensional Data

Model	A	B	C	D	E	F	Hmax	K	M	N	X	Y	T
F114D-173-64WL	277.56	28.35	25.67	64.02	58.19	83.86	110.87	55.12	104.06	14.17	22.88	88.78	25.59
F160D-173-74WL	297.05	31.43	23.31	74.02	64.17	83.86	122.91	59.06	127.17	14.17	24.63	89.17	29.53
F228D-246-86WL	323.82	37.36	30.39	83.08	70.87	88.03	138.27	68.11	136.61	14.17	29.91	99.80	33.46
F320D-246-86WL	323.82	37.36	30.39	83.08	70.87	88.03	138.27	68.11	136.61	14.17	29.91	99.80	37.40
F320D-256-100WL	344.29	42.05	34.53	96.98	78.98	88.03	156.30	75.98	156.54	14.17	29.92	96.46	37.40

Note: All dimensions stated in inches

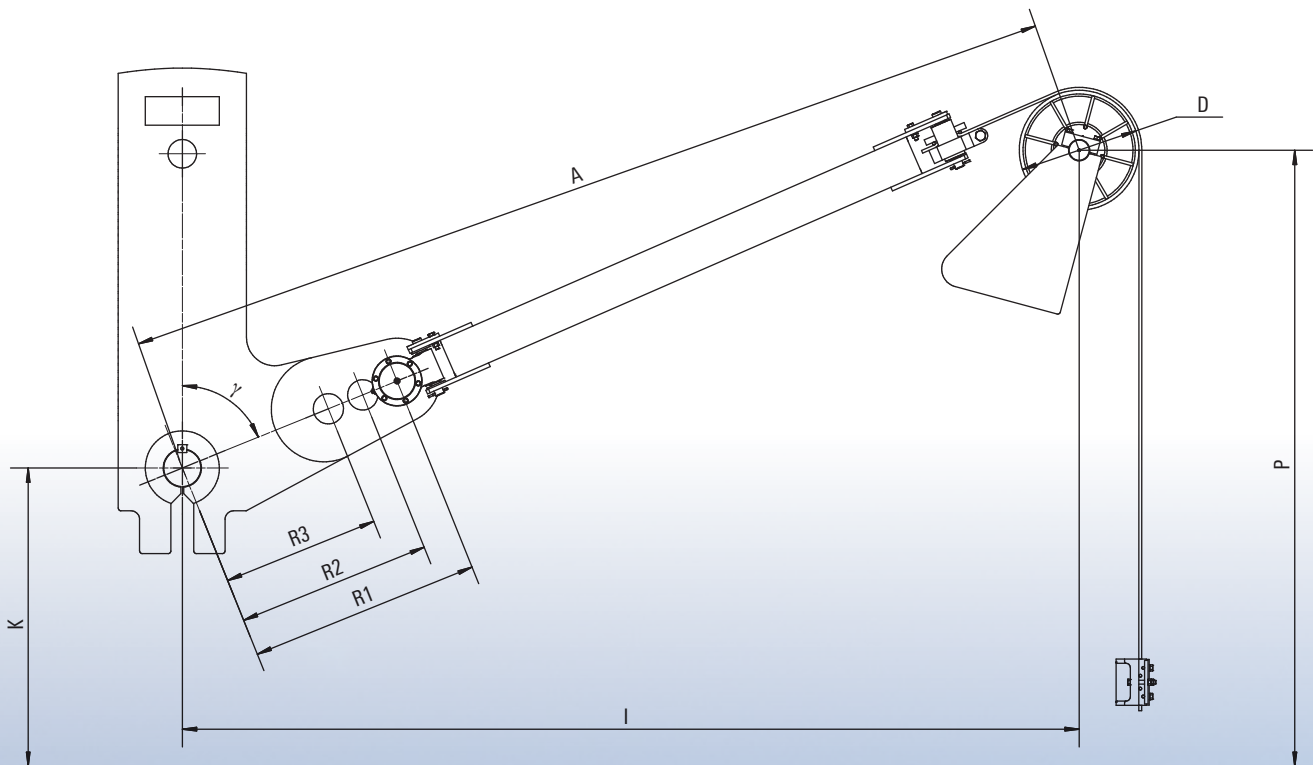


# FlexLift Low-Profile Pumping Units

## API Geometry Dimensions and Torque Factors

Model	D, in	P, in	I, in	A, in	K, in	R1, in	R2, in	R3, in	$\gamma$ , °	Torque Factor at (90°-PA <sup>†</sup> ), in		
										Stroke 1	Stroke 2	Stroke 3
F114D-173-64	16.54	88.03	123.94	115.08	44.02	32.01	26.89	21.77	68	30.93	26.23	21.40
F160D-173-74	16.54	100.08	144.93	132.99	50.00	37.01	31.89	26.77	68	36.02	31.25	26.39
F228D-246-86	19.92	127.91	160.20	107.72	70.87	42.99	35.51	28.03	68	41.47	34.62	27.57
F320D-246-86	19.92	127.91	160.20	107.72	70.87	42.99	35.51	28.03	68	41.47	34.62	27.57
F320D-256-100	19.92	145.94	184.80	170.26	78.98	50.00	42.52	35.04	68	48.65	41.69	34.59

<sup>†</sup> Phase angle



# FlexLift Low-Profile Pumping Units

## Structural Data

Model	Polished Rod Capacity, lbf	Stroke Lengths, in			Crank	Crank Pin Bearing	Roller Assembly	Belt
		Stroke 1	Stroke 2	Stroke 3				
F114D-173-64	17,300	64.00	53.80	43.50	FLC140R/FLC140L	FLCP100	FLR100	FLB100
F160D-173-74	17,300	74.00	63.80	53.50	FLC130R/FLC130L	FLCP100	FLR100	FLB110
F228D-246-86	24,600	85.98	71.02	56.06	FLC120R/FLC120L	FLCP110	FLR110	FLB120
F320D-246-86	24,600	85.98	71.02	56.06	FLC120R/FLC120L	FLCP110	FLR110	FLB120
F320D-256-100	25,600	100.00	85.00	70.00	FLC110R/FLC110L	FLCP110	FLR110	FLB130



# FlexLift Low-Profile Pumping Units

## Counterbalance Data

		Model				
		F114D-173-64	F160D-173-74	F228D-246-86	F320D-246-86	F320D-256-100
Maximum stroke, in		64	74	86	86	100
Cranks		FLC140R and FLC140L	FLC130R and FLC130L	FLC120R and FLC120L	FLC120R and FLC120L	FLC110R and FLC110L
ECB <sup>†</sup> (cranks only), lbf		2,487	2,433	4,366	4,366	4,674
Total ECB, lbf	2 weights	5,123	4,937	8,434	8,434	8,719
	2 weights and 2 auxiliary weights	5,991	5,761	9,451	9,451	9,730
	2 weights and 4 auxiliary weights	6,861	6,588	10,468	10,468	10,742
	4 weights	7,759	7,441	12,502	12,502	12,764
	4 weights and 4 auxiliary weights	9,494	9,090	14,537	14,537	14,787
	4 weights and 8 auxiliary weights	11,234	10,742	16,571	16,571	16,810

<sup>†</sup> Effective counterbalance

