

PIPE BENDING MACHINES "STANDARD"

For pipe from 32" (813 mm) to 60" (1524 mm)



Hydraulic controls give one operator complete command of all machine operations from a convenient platform.

Hydraulically driven winch moves the pipe through the machine. Pipe moves easily on contoured rollers.

Calibrated indicator rod allows the operator to make consistently uniform bends.

Pin-Up shoe automatically grips the pipe to prevent distortion.

Conversion to another pipe size within the machine range is made simply by fitting an alternative bending set.

The machine is capable of bending all grades of currently available API-5L pipe within its range.

The machine frame is constructed from high strength steel to give long life without fatigue

failure.

Unitized construction makes for easy maintenance and repairs.

The towing eye is attached to the hydraulically actuated stiff-back and may be raised and lowered to facilitate attachment to the towing tractor.

The machine may be towed on the right-of-way by a suitable tractor, normally the side boom feeding the pipe to the bending machine.

For each pipe size to be bent, a Bending Set, a Bending die, a Mandrel, and a Bending Belt are required.

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SPECIFICATIONS

Model	PB 32 - 42 Series 3	PB 38 - 48 Series 4	PB 48 - 60 Series 4
PIPE DIAMETER inches (meters)	32 - 42 (813 - 1067mm)	38 - 48 (965 - 1219mm)	48 - 60 (1219 - 1524mm)
POWER UNIT hp (kW)	DIESEL 140 hp (104 kW)	DIESEL 225 hp (168 kW)	DIESEL 225 hp (168 kW)
LENGTH inches (meters)	27' - 0" (8.23 m)	32' - 6" (9.91 M)	33' - 8" (10.26 m)
WIDTH inches (meters)	10' - 0" (3.05 m)	10' - 8" (3.25 m)	12' - 10" (3.91 m)
HEIGHT inches (meters)	9' - 10" (3.00 m)	10' - 8" (3.25 m)	11' - 4" (3.45 m)
NET WEIGHT (COMPLETE)	69750 lb (31639 kg)	120750 lb (54772 kg)	154775 lb (70206 kg)
TRACK WEIGHT (LOOSE PAIR)	8500 lb (3856 kg)	14906 lb (6761 kg)	15508 lb (7034 kg)
STIFF-BACK WEIGHT (LOOSE)	8910 lb (4042 kg)	10744 lb (4873 kg)	11988 lb (5438 kg)
OUT-BOARD CYLINDER BORE X STROKE	Four - 11" x 18" (279 x 457 mm)	Four - 14" x 18" (356 x 457 mm)	Four - 14" x 18" (356 x 457 mm)
IN-BOARD CYLINDER BORE X STROKE	Four - 8" x 5" (203 x 127 mm)	Four - 10" x 6" (254 x 152 mm)	Four - 10" x 6" (254 x 152 mm)
HYDRAULIC SYSTEM MAX. OPERATING PRESSURE	3000 psi, (210 kg/cm ²)	3000psi (210 kg/cm ²)	3000 psi' (210 kg/cm ²)

All power unit ratings are "continuous horsepower Ca) 2,000 RPM".

EXTRA COST OPTIONS (FACTORY FITTED ONLY)

Power units to customer specifications.

Electric Motor.

Detachable power unit.

Stationary base to replace tracks.

Cold weather operating kit (-400C or F).

Cab.

Power unit position option.

Shipping weight reduction facility.

Extra wide track pads.

EXTRA COST ATTACHMENTS

Bending sets for out-of-range pipe.

Bending sets for specific coating.

Hydraulic power take-offs.

Bending belts (steel lined choker belts).

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32" - 60" PIPE BENDING DATA - ALL DIMENSIONS IN INCHES

Pipe O.D. in/mm	Maximum Wall Thickness by Grade					Recommended Bend		
	X52	X60	X65	X70	X80	Degree Arc per Foot	Radius Feet	Max degree per 40 ft. joint
PB 32 - 42 Series 3								
32/813	2.276	1.904	1.728	1.583	1.355	0.5	115	12.50
34/864	1.930	1.628	1.483	1.363	1.172	0.5	115	12.50
36/914	1.668	1.415	1.293	1.190	1.027	0.5	115	12.50
38/965	1.461	1.245	1.139	1.051	.909	0.5	115	12.50
40/1016	1.295	1.106	1.014	.936	.811	0.5	115	12.50
42/1067	1.157	.991	.910	.840	.730	0.5	115	12.50
PB 38 - 48 Series 4								
38/965	3.718	3.055	2.752	2.505	2.127	0.5	115	12.75
40/1016	3.170	2.638	2.390	2.184	1.866	0.5	115	12.75
42/1067	2.759	2.315	2.105	1.930	1.655	0.5	115	12.75
44/1118	2.436	2.056	1.875	1.722	1.482	0.5	115	12.75
46/1168	2.174	1.844	1.684	1.550	1.338	0.5	115	12.75
48/1219	1.958	1.666	1.524	1.405	1.214	0.5	115	12.75
PB 48 - 60 Series 4								
48/1219	2.421	2.050	1.871	1.721	1.483	0.5	115	10.50
50/1270	2.186	1.857	1.698	1.564	1.351	0.5	115	10.50
52/1321	1.988	1.694	1.550	1.429	1.237	0.5	115	10.50
54/1372	1.818	1.552	1.423	1.313	1.138	0.5	115	10.50
56/1422	1.671	1.429	1.311	1.211	1.050	0.5	115	10.50
58/1473	1.543	1.322	1.213	1.121	.973	0.5	115	10.50
60/1524	1.429	1.226	1.126	1.041	.905	0.5	115	10.50

Based on 85% efficiency and maximum strength = 1.2 x X# x 1000.

These figures are recommended only and do not constitute a warranty.

All bends shown include the use of CRC-Evans Bending Mandrels. The figures given are "average". They will vary due to:

- The wall thickness of the pipe.
- The actual (as opposed to the nominal) yield of the pipe.
- Skill of the operator in handling the bending machine and the mandrel.
- The origin of the pipe (pipe mill, plate mill, etc.) and quality of the pipe.
- The type of pipe. Spiral seam pipe will normally accept only 75% of the recommended bend.
- The type of die and/or bending set being used (e.g., polyurethane lining or special radius dies).

An unbent end (tangent) is produced at each end of the pipe where the pipe contacts the stiff back and pin-up. A pipe support may be required at each end of the pipe on pipe diameters of 48" and larger. Normal unbend tangents:

	Stiff-Back End with Pipe Support	Stiff-Back End no Pipe Support	Pin-Up End with Pipe Support	Pin-Up End no Pipe Support
PB 32-42	Support not Required	7'-6"	Support not Required	7'-6"
PB 38-48	7'-6"	8' - 6"	7'-0"	7' - 6"
PB 48-60	11'-0"	13' - 0"	8'-0"	9'-

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Pipe O.D. mm/in	Maximum Wall Thickness by Grade					Recommended Bend			
	X52	X60	X65	X70	X80	RATIO Radius: O.D.	Degree Arc per Meter	Radius Meters	Max degree per 12m joint
PB 32 - 42 Series 3									
813/32	57.82	48.36	43.9	40.21	34.43	43.1	1.64	35.01	12.14
864/34	49.02	41.35	37.68	34.61	29.78	40.6	1.64	35.01	12.14
914/36	42.36	35.93	32.83	30.22	26.09	38.3	1.64	35.01	12.14
965/38	37.12	31.62	28.94	26.69	23.09	36.3	1.64	35.01	12.14
1016/40	32.89	28.10	25.76	23.78	20.61	34.5	1.64	35.01	12.14
1067/42	29.40	25.18	23.1	21.35	18.53	32.9	1.64	35.01	12.14
PB 38 - 48 Series 4									
965/38	94.45	77.60	69.91	63.64	54.02	36.3	1.64	35.01	12.38
1016/40	80.53	67.01	60.69	55.49	47.39	34.5	1.64	35.01	12.38
1067/42	70.07	58.81	53.46	49.02	42.05	32.9	1.64	35.01	12.38
1118/44	61.87	52.23	47.61	43.75	37.65	31.4	1.64	35.01	12.38
1168/46	55.23	46.83	42.78	39.37	33.97	30.0	1.64	35.01	12.38
1219/48	49.74	42.32	38.71	35.68	30.85	28.8	1.64	35.01	12.38
PB 48 - 60 Series 4									
1219/48	61.50	52.06	47.52	43.71	37.67	28.8	1.64	35.01	10.17
1270/50	55.53	47.18	43.13	39.72	34.31	27.6	1.64	35.01	10.17
1321/52	50.49	43.02	39.38	36.31	31.42	26.5	1.64	35.01	10.17
1372/54	46.18	39.43	36.13	33.35	28.89	25.6	1.64	35.01	10.17
1422/56	42.45	36.31	33.30	30.76	26.68	24.6	1.64	35.01	10.17
1473/58	39.18	33.57	30.81	28.47	24.72	23.8	1.64	35.01	10.17
1524/60	36.31	31.15	28.61	26.45	22.99	23.0	1.64	35.01	10.17

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	Stiff-Back End with Pipe Support	Stiff-Back End no Pipe Support	Pin-Up End with Pipe Support	Pin-Up End no Pipe Support
PB 32-42	Support not Required	2.30 in	Support not Required	2.30 m
PB 38-48	2.30 m	2.60 m	2.15 in	2.30 m
PB 48-60	3.35 in	3.95 in	2.45 m	2.75 m