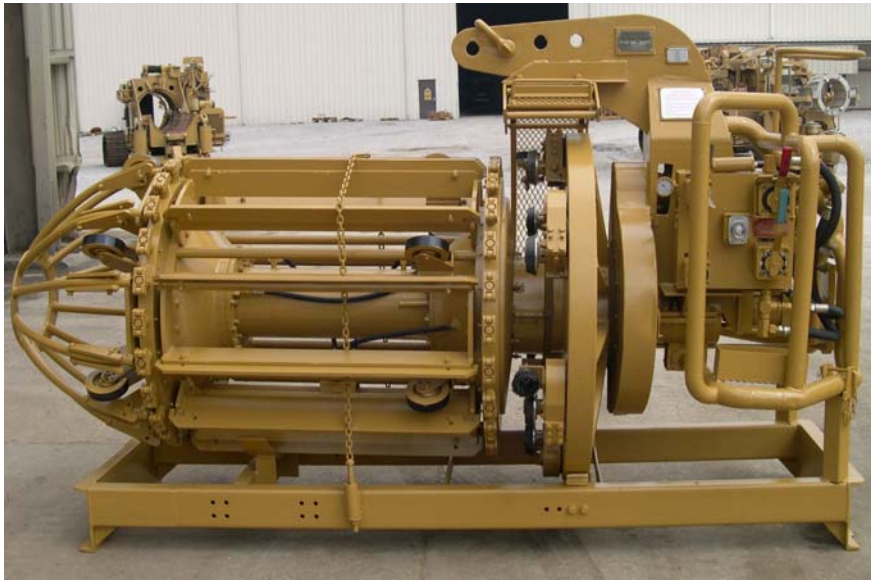


# PIPE FACING MACHINE



The CRC-Evans Pipe Facing machine was developed to machine the complex bevel required by the CRC-Evans Automated Pipeline Welding System. Since its introduction in 1968, the CRC-Evans Pipe Facing Machine has been used to make millions of bevels on pipes ranging from 4" to 64" in diameter.

In addition to preparing bevels for the CRC-Evans Automated Pipeline Welding System, CRC-Evans Pipe Facing Machines are used for:

- Producing clean, bright, perfect bevels for manual pipeline welding to maximize quality and minimize repairs.

- Machining modified bevels on heavy wall pipe to reduce metal volume, therefore reducing welding time.

- Machining mitered bevels up to 2-1/2 degrees included angle on pipelines where it is not possible to use a Pipe Bending Machine. (Miter type PFMs).

The CRC-Evans Pipe Facing Machine uses a combination of mechanical and hydraulic components to produce bevels with a tolerance of  $\pm 0.005$ " (0.13mm). A hydraulic power source is required.

# PIPE FACING MACHINE

The CRC-Evans Pipe Facing Machine has two major parts. The clamp section and the machining section. The clamp section has two sets of hydraulically operated shoes that are mechanically interconnected so that they expand equally and simultaneously. The shoes secure the machine to the pipe end by expanding inside the pipe.

The machining section of the Pipe Facing Machine consists of a rotating faceplate with up to six radial arms holding cutting tools with tungsten-carbide tips. The tools can be set to machine a wide range of bevel configurations. The faceplate is rotated hydraulically. The face plate is fed by an independent hydraulic system.

On shore (land) pipelines, the Pipe Facing Machine is suspended from a side boom tractor. The pipe facing operation takes 2 to 5 minutes depending on the pipe wall thickness and the skill of the operator. The recommended manpower is one facing machine operator and one tractor operator.

The CRC-Evans Hydraulic Power Unit (HPU) can be used to power the Pipe Facing Machine. This unit is skid mounted and consists of a prime mover, hydraulic pumps, oil reservoir, and hydraulic hoses for transferring the power. Alternatively, power may be obtained from a tractor mounted hydraulic power take-off.

The standard CRC-Evans Pipe Facing Machine with Hydraulic Power Unit is available for pipe sizes 4" through 60". The machines are available for sale or lease. CRC-Evans maintains an extensive inventory of spare parts, consumable items and tools.

SIZE inches	WEIGHT lb/kg	DIMENSIONS			CUBE ft <sup>3</sup> /m <sup>3</sup>
		WIDTH inches/m	HEIGHT inches/m	LENGTH inches/m	
4-10	1120/508	34/.86	37/.94	56/1.42	41/1.16
8-14	1300/590	34/.86	37.94	65/1.65	47/1.34
16-22	1850/839	40/1.02	43/1.09	81/2.06	81/2.28
24-26	2300/1043	40/1.02	47/1.19	90/2.29	98/2.77
28-32	3200/1451	14/1.04	52/1.32	100/2.54	123/3.49
34-38	3800/1723	44/1.12	58/1.47	103/2.62	152/4.31
40-44	5400/2449	53/1.35	77/1.96	116/2.95	274/7.76
46-48	6500/2948	54/1.37	77/1.96	129/3.28	310/8.79
50-60	8800/3991	68/1.73	87/2.21	140/3.56	479/13.57
48" Miter	6100/2766	55/1.40	77/1.96	112/2.84	274/7.77
56" Miter	8400/23810	76/1.93	87/2.21	112/2.84	429/12.14

# PIPE FACING MACHINE

<b>PIPE FACING MACHINE CATEGORIES</b>			
<b>SIZE</b>	<b>RADIALS ARMS</b>	<b>EXPANDER RANGE inches</b>	<b>MAX. WALL THICKNESS in. (mm)</b>
2.5" TO 8"	1 FIXED 1 MOVABLE	2.5 - 7 7 - 8	FOR 6", 0.875 in. (22 mm)
8" - 14"	3 MOVABLE	8 - 10 12-14	0.625 in. (16 mm) 0.625 in. (16 mm)
16" - 22"	4 MOVABLE	16 18 - 22	0.750 in. (19mm) 0.750 in. (19mm)
24" - 26"	4MOVABLE	24 - 26	1.00 in. (25.4 mm)
28" - 32"	6 MOVABLE	28 - 32	1.250 in. (32 mm)
34" - 38"	6 MOVABLE	34 - 38	1.250 in. (32 mm)
40" - 48"	6 MOVABLE	40 - 44 46 - 48	1.250 in. (32 mm)
50" - 60"	6 MOVABLE	50 - 54 56 - 60	1.250 in. (32 mm)

Counterbores and Miter Machines are considered specials. Supply all pertinent information to Houston or Tulsa before quoting.

Thicker wall thickness have been beveled with particular machines. It is important to consult Tulsa or Houston before quoting heavy wall pipe thicknesses.

## IMPORTANT

On all wall thicknesses 1.00 in. (25.4mm) and above, it is strongly recommended the CRC-Evans engineering in Houston or Tulsa be consulted.