

Box Cam Unit



Typical Application:

- In-Line Piercing.

Product Features:

- Available in three maximum piercing forces: 89 kN (8 Ton), 178 kN (16 Ton), 356 kN (32 Ton).
- Force ratings at end of stroke. Piercing must be done during last 5 to 6 mm (.20 to .24 in.) of stroke.
- Driving force must be perpendicular to the cam motion.
- Self-lubricating slides and bearings require no lubrication.
- Integrated cam return powered by internal Tanker® 2 nitrogen gas spring.
- Compact size compared to most piercing units powered by mechanical springs.
- Cost competitive with most slide cams.
- Mild steel cam face for easy punch retainer mounting.

Selection and Installation Guidelines:

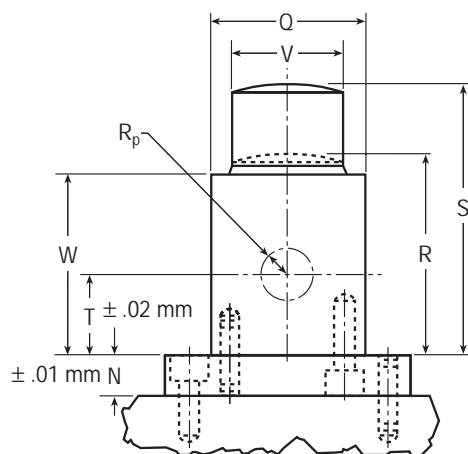
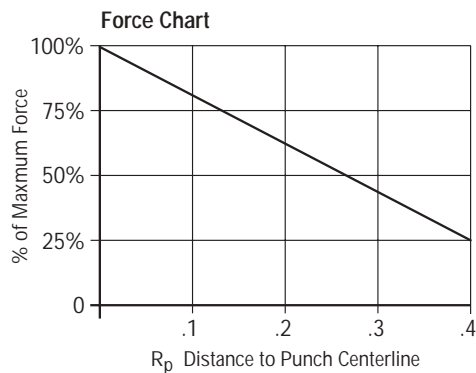
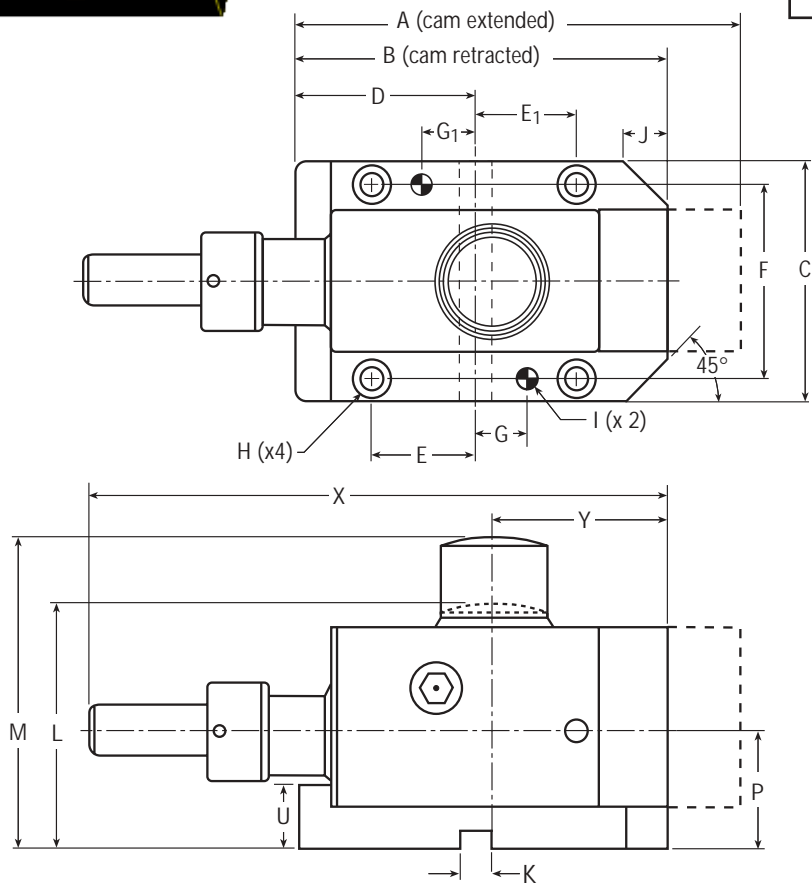
- When calculating cam force requirements, take into account change in piercing force as a result of punch wear and fluctuation in material thickness.

- When piercing forces are close to maximum catalog ratings, choose next larger size cam.
- Force rating decreases based on distance from center of punch to center of face plate piston. See Force Chart on Page 2.
- For easy punch alignment during set-up, remove pin located on side of unit and actuate cam by hand.
- Cam is secured into position with key or two dowel pins and then bolted to the tool.
- Retainer mounting surface allows easy machining of mounting and dowel holes.
- Manufactured driver supplied by user.
- Driver's contact surface should be perpendicular and hardened.
- Cam must be used in conjunction with stripper springs or an alternative stripping method.
- Keyway-to-dowel and dowel-to-dowel locations are held to +/- .01 mm (.0005 in.).
- Mounting hole locations are held to +/- .1 mm (.005 in.).
- For angular piercing applications, use Dyne-A-Cam™ roller cam or Nitro-Cam™
- Maximum contact velocity 100 ft/min.

Box Cam Unit



Model	Maximum Force at Maximum Travel	Maximum Travel
DC-10 X .75	89 kN	19.05 mm
	8 Ton	.75 in.
DC-20 X 1	178 kN	25.4 mm
	16 Ton	1.0 in.
DC-40 X 1.75	356 kN	44.45 mm
	32Ton	1.75 in.



NOTE: Dowel to dowel dimensions are held to ±.01 mm (.005 in.).
Mounting hole dimensions are held to ±.1 mm (.005 in.).

Box Cam Unit Dimensions																											
Model		A	B	C	D	E	E ₁	F	G	G ₁	H	I	J	K	L	M	N	P	Q	R	S	T	U	V	W	X	Y
DC-10 X .75	mm	158	139	90	66.3	38.8	38.8	73	20	20	M8	8	16	12 x 6	95	114	15	43.5	57	80	99	28.5	22	40	74	172	69
	in.	6.22	5.47	3.54	2.61	1.53	1.53	2.87	0.79	0.79		0.32	0.63		3.74	4.49	0.59	1.71	2.24	3.15	3.90	1.12	0.87	1.57	2.91	6.77	2.72
DC-20 x 1	mm	204	189	116	96.5	46.5	55.5	96	32.5	23.5	M10	8	20	12 x 6	113	138	15	50	76	98	123	35	24	50	91	270	87
	in.	8.03	7.44	4.57	3.80	1.83	2.19	3.78	1.28	0.93		0.32	0.79		4.45	5.43	0.59	1.97	2.99	3.86	4.84	1.38	0.95	1.97	3.58	10.63	3.43
DC-40 X 1.75*	mm	360	315.5	162	156.5	85.5	87	136	57	55.5	M12	10	28	20 x 8	180	224	19	77	118	161	205	58	39.5	80	155	400	164
	in.	14.17	12.42	6.38	6.16	3.37	3.43	5.35	2.24	2.19		0.39	1.10		7.09	8.82	0.75	3.03	4.65	6.33	8.07	2.28	1.56	3.15	6.10	15.75	6.46

NOTE: Dimensions are subject to change without notice. All dimensions are nominal unless tolerance is stated.
*Special order only.