



# Technical Bulletin No. 151

**CONVERTER ACCESSORY CORP.**

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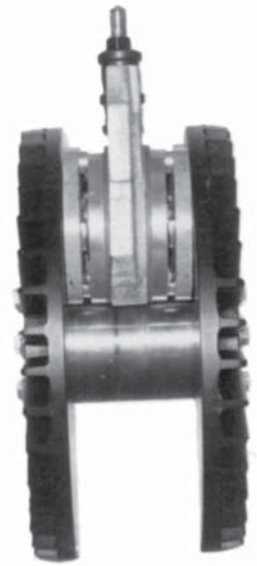
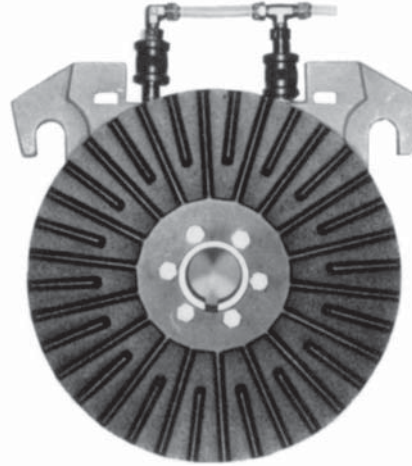
Fax: 800-709-1007

## AIR OPERATED TENSION BRAKE

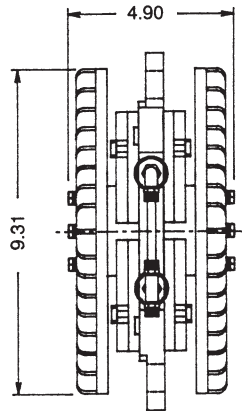
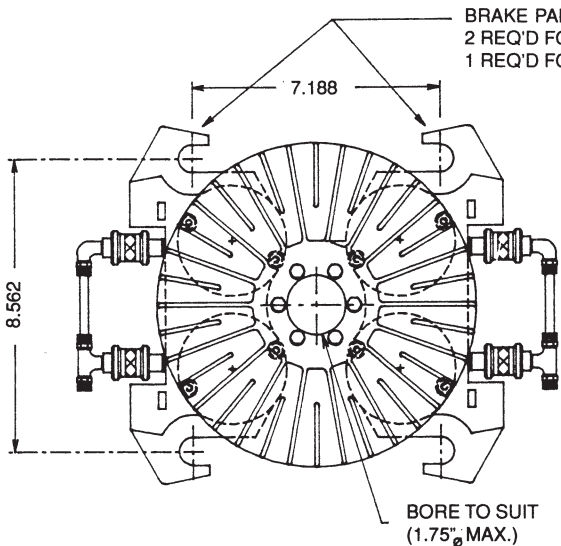
DESIGNED AND MANUFACTURED BY CAC

### HORSE POWER (HEAT DISSIPATION)

600	2.87	1250	4.63	1900	6.00
550	2.72	1200	4.51	1850	5.90
500	2.56	1150	4.39	1800	5.81
450	2.40	1100	4.26	1750	5.71
400	2.23	1050	4.14	1700	5.61
350	2.06	1000	4.01	1650	5.51
300	1.89	950	3.88	1600	5.41
250	1.72	900	3.74	1550	5.31
200	1.54	850	3.60	1500	5.20
150	1.36	800	3.46	1450	5.09
100	1.18	750	3.32	1400	4.98
50	.99	700	3.17	1350	4.87
0	.80	650	3.02	1300	4.75
ECS	HP	ECS	HP	ECS	HP



ECS=EFFEKTIVE COOLING SPEED  
(SEE BACK)



### TORQUE

6000 SERIES	.10 PADS		.30 PADS		.45 PADS	
	LB. IN.	LB. IN.	LB. IN.	LB. IN.	LB. IN.	LB. IN.
MODEL	MAX	MIN	MAX	MIN	MAX	MIN
62 (PAD VALUE)	330		1000		1500	
		2.2		6.6		10
64 (PAD VALUE)	660		2000		3000	

## AVERAGE WEB TENSION FOR FILMS & FOILS

MATERIAL	TENSION IN PLI											
POLYSTYRENE ALUM. FOIL	.25	.50	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
POLYESTER CELLOPHANE	.19	.38	.75	1.5	2.3	3.0	3.8	4.5	5.3	6.0	6.8	7.5
ACETATE	.125	.25	.50	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
POLYETHYLENE POLYPROPYLENE NYLON	.075	.15	.30	.6	.9	1.2	1.5	1.8	2.1	2.4	2.7	3.0
SARAN VINYL	.025	.05	.10	.20	.30	.40	.50	.60	.70	.80	.90	1.0
WEB THICKNESS IN MILS	.00025	.0005	.001	.002	.003	.004	.005	.006	.007	.008	.009	.010

WHEN THESE MATERIALS ARE COATED WITH POLYETHYLENE, NYLON, POLYPROPYLENE, EVA, OR EEA, ADD .06 PLI PER .0005" OF COATING THICKNESS.

## AVERAGE WEB TENSIONS FOR PAPER, PAPERBOARD AND LAMINATIONS

MATERIAL	TENSION(PLI)	PAPERBOARD	TENSION(PLI)
15 LBS./REAM 3000 SQ. FT.	.50	8 PT.	3
20 LBS./REAM	.75	12 PT.	4
30 LBS./REAM	1.0	15 PT.	5
40 LBS./REAM	1.5	20 PT.	7
60 LBS./REAM	2.0	25 PT.	9
80 LBS./REAM	2.5	30 PT.	11
LAMINATIONS			
25 LB. PAPER/.0005 PE/ .00035 FOIL/ .001 PE	3 PLI		
.001 CELLO/ .0005 PE/ .001 CELLO	1.5 PLI		

NOTE: THE ABOVE LIST IS A GUIDELINE ONLY. ACTUAL TENSIONS WILL VARY FOR SPECIFIC APPLICATIONS.

### APPLICATION FORMULAE:

$$\text{MAX. TORQUE IN LB. IN.} = \frac{\text{MAX. ROLL DIA.} \times \text{MAX. TTL. WEB TENSION}}{2}$$

$$\text{MIN. TORQUE IN LB. IN.} = \frac{\text{CORE O.D.} \times \text{MIN. TTL. WEB TENSION}}{2}$$

$$\text{MAX. BRAKE RPM} = \frac{3.82 \times \text{WEB SPEED(FPM)}}{\text{CORE O.D.}}$$

$$\text{MIN. BRAKE RPM} = \frac{3.82 \times \text{WEB SPEED(FPM)}}{\text{MAX. ROLL DIA.}}$$

$$\text{BRAKE HORSE POWER} = \frac{\text{MAX. TTL. TENSION} \times \text{WEB SPEED(FPM)}}{33,000}$$

$$\text{EFFECTIVE COOLING SPEED} = \frac{((2 \times \text{MIN. RPM}) + \text{MAX. RPM})}{3}$$



WEB HANDLING . . . your ONE SOURCE supplier.

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