

APPLICATION SYSTEMS

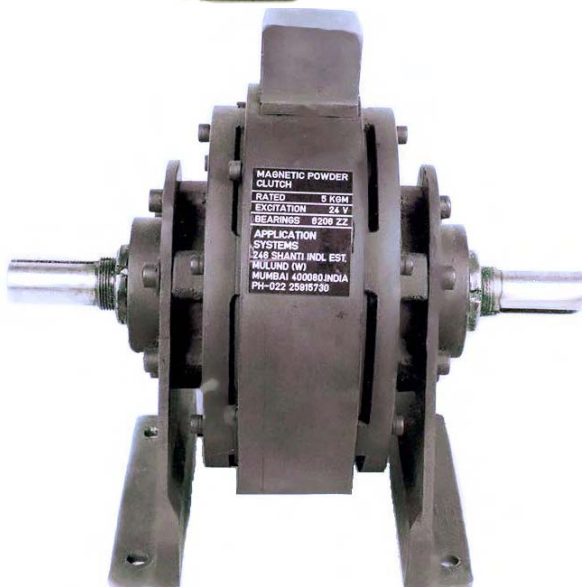
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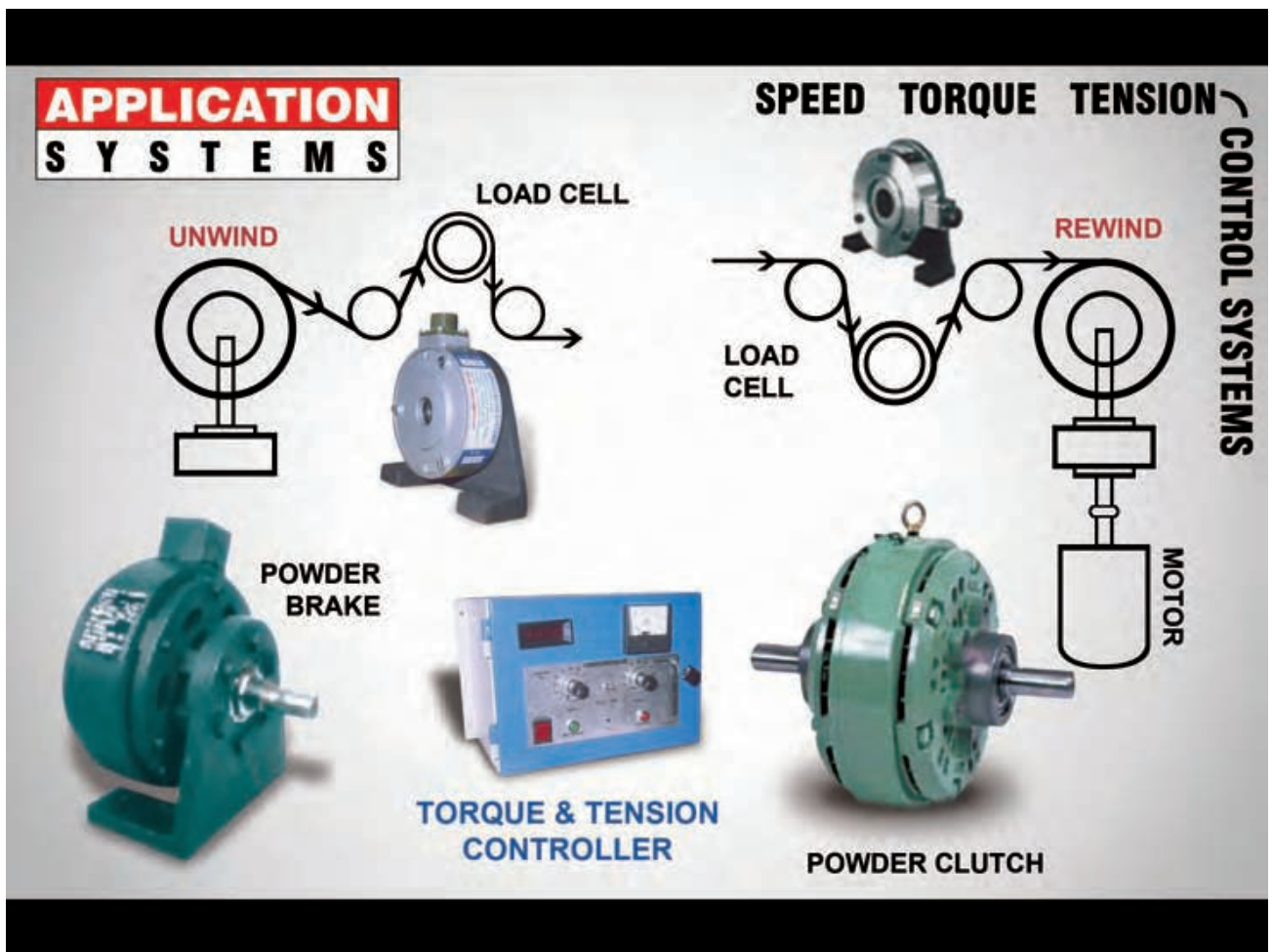
Magnetic Particle Brakes & Clutches are popularly known as Powder brakes & clutches. These powder brakes & clutches are manufactured by us in wide range from tiny 0.1 KgM to massive 200 KgM torque range

These are manufactured in self cooled, forced air cooled & water cooled version. Powder brakes & clutches are real torque control device, meaning braking or clutching torque is strictly proportional to excitation current,

The magnetic powder clutch and brake achieves at low control power a high torque being independent from the slip speed. It distinguishes itself by a simple construction, low weight and small required space. Due to this advantage the clutch / brake is used for the solution of many technical problems. For the various applications also appropriate control devices are necessary. By changing the exciting power force, the torque to be transmitted can be adjusted infinitely variable in the range 1:30



The Powder Brakes & Clutches contain, as their name suggests, a magnetic powder. The electrical current passing through the coil generates a magnetic field, which changes the property of the powder, from free flowing condition at no excitation to solid rock condition at full excitation. Thus producing a smooth braking torque through friction between rotor and stator. The Powder Brakes & Clutches produces their rated torque at zero speed. The element to be tested / Clutched, can be loaded at standstill to determine the starting torque.



Schematic: Powder Brakes & Clutches are used as Unwind & Rewind Torque control, with Load Cells, Dancer & Tension Control, to maintain CONSTANT TENSION.

Control Options:

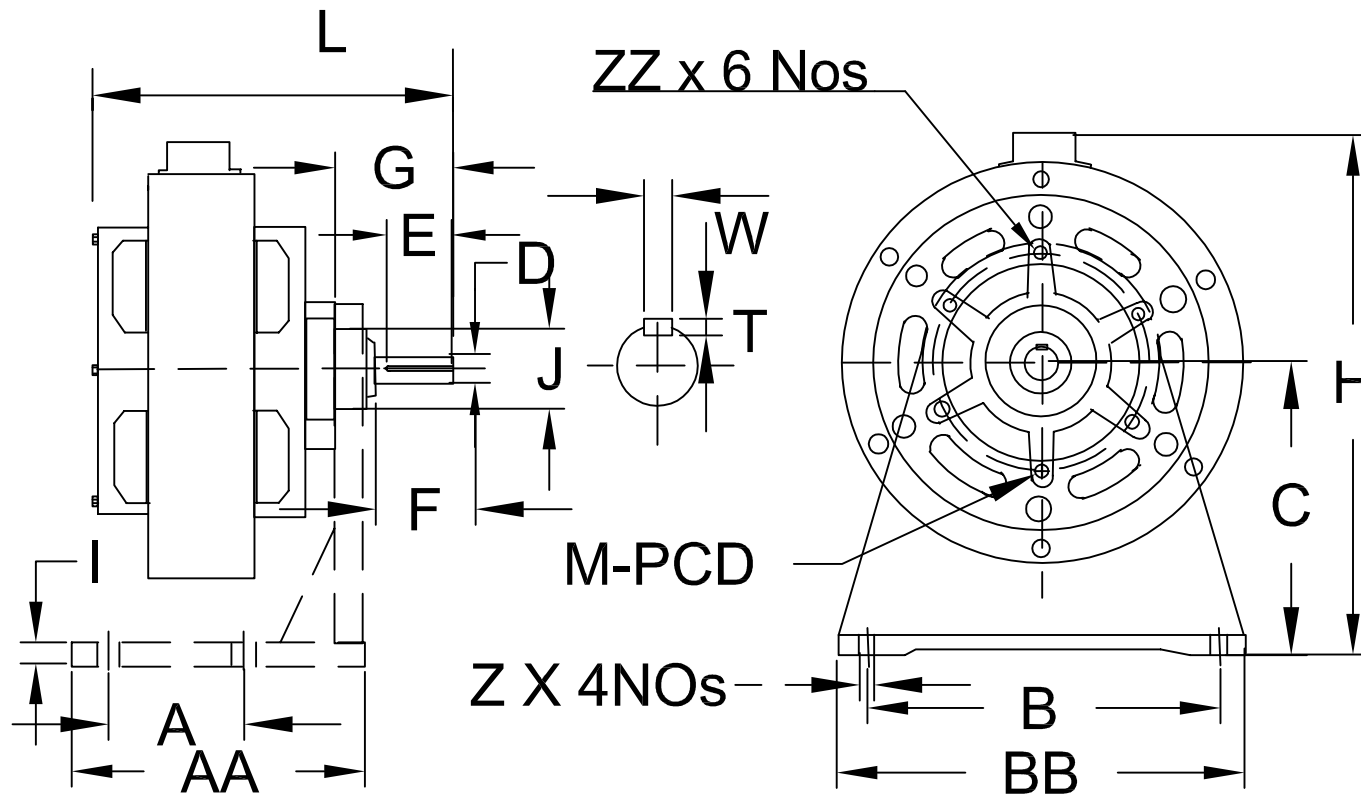
- * Manual Torque Control
- * Manual Tension Control
- * Auto Tension Control with Load Cell Feedback
- * Dancer feedback Tension Control
- * Non-contact Tension Control, by electronic Diameter computation
- * Intermediate section Tension / Stretch Control
- * Digital & Analogue Tension / Torque Control

Salient Features of Powder Brakes / Clutches:

- * Models available in wide Torque ranges, from tiny 0.1 KgM to massive 100 KgM
- * Smooth, infinitely adjustable Torque
- * Set Torque maintained independent of Speed
- * Torque is Linear to Coil Excitation
- * Fast response due to low Inertia
- * Available in Self Cooled, Forced Air Fan Cooled & Water Cooled Versions

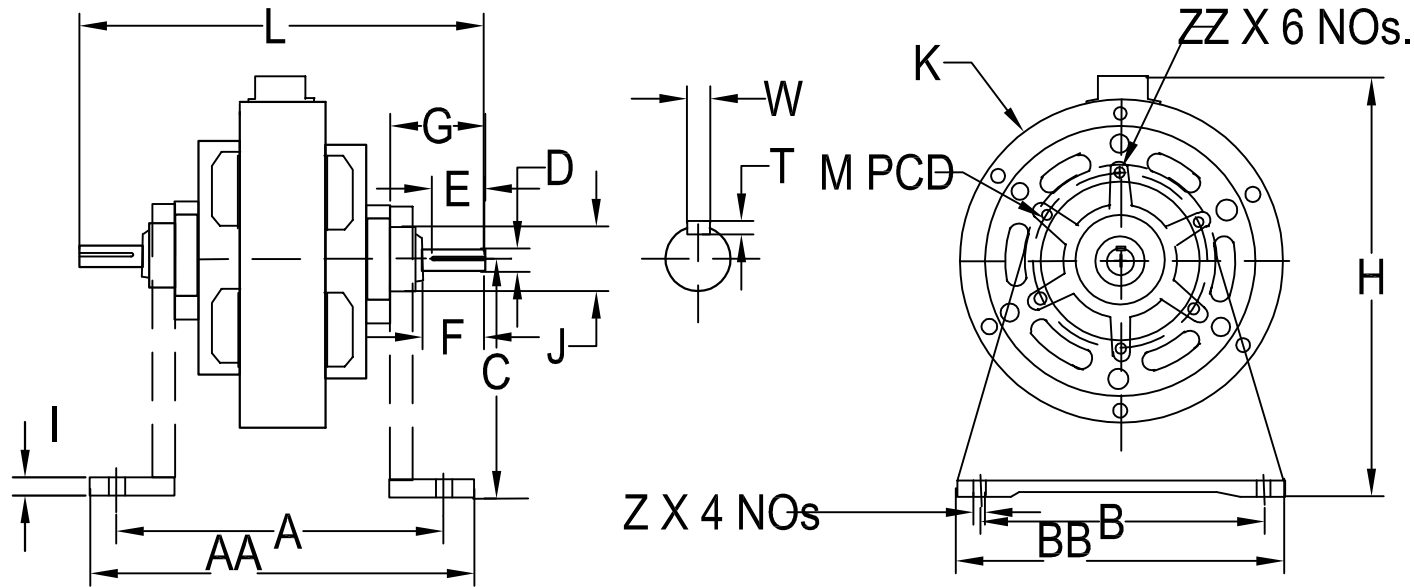
MAGNETIC POWDER BRAKE, Self cooled

APPLICATION SYSTEMS
Thane



RATING	A	AA	B	BB	C	∅D	E	F	G	H	I	∅J	L	M-PCD	W	T
2.5 KgM	50	110	110	160	115	20	30	40	65	260	8	70	185	90	6	6
5 KgM	55	125	160	200	140	25	50	55	80	310	10	82	215	100	6	6
10 KgM	100	160	240	280	175	30	55	60	85	360	10	100	255	136	8	7
20 KgM	110	170	260	300	195	35	65	70	110	400	12	110	288	138	10	8
40 KgM	150	200	340	380	235	40	80	90	135	470	16	130	355	200	12	8

MAGNETIC POWDER CLUTCH, SELF COOLED.

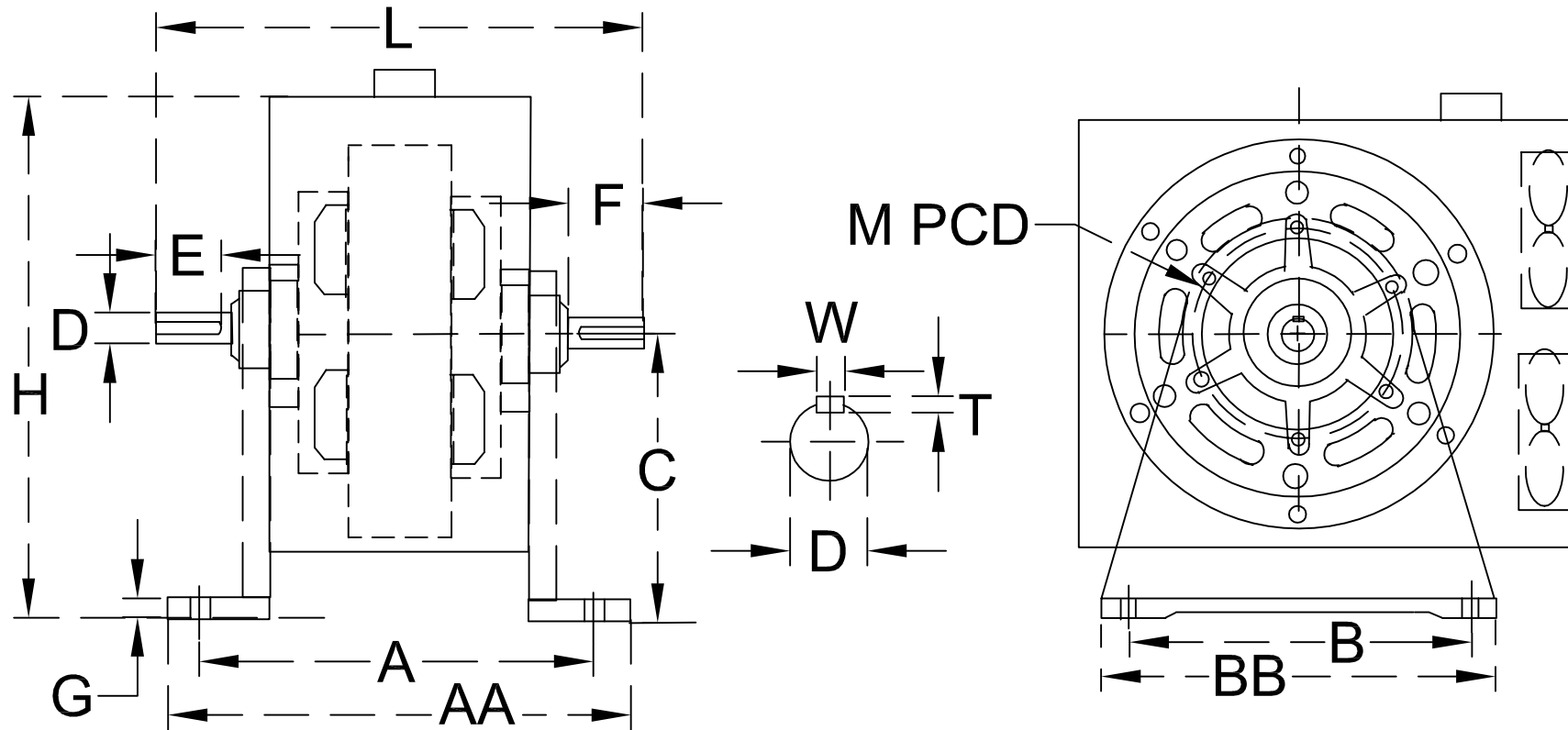


APPLICATION SYSTEMS
Thane

RATING	A	AA	B	BB	C	D Φ	E	F	G	H	I	J Φ	K Φ	L	M-PCD	Z Φ	ZZ	W	T
2.5 KgM	50	110	110	160	115	20	30	40	65	260	6	70	190	300	90	9	M5	6	6
5 KgM	158	198	160	200	140	25	50	55	80	310	6	82	230	335	100	9	M8	6	6
10 KgM	225	265	240	280	175	30	55	60	85	360	6	100	290	375	136	12	M8	8	7
20 KgM	250	290	260	300	195	35	65	70	110	400	6	110	328	442	138	14	M8	10	8
40 KgM	300	380	240	380	240	40	80	90	135	470	16	130	400	525	200	19	M10	12	8

MAGNETIC POWDER CLUTCH, FORCE COOLED.

APPLICATION SYSTEMS
Thane



Rating	A	AA	B	BB	L	C	D	E	F	G	H	M-PCD	W	T
5 KgM	158	198	160	200	335	140	25	50	55	6	300	100	6	6
10 KgM	225	265	240	280	375	175	30	55	60	6	375	136	8	7
20 KgM	250	290	260	300	442	195	35	65	70	6	415	138	10	8
40 KgM	300	380	340	380	525	285	40	80	90	6	485	200	12	8