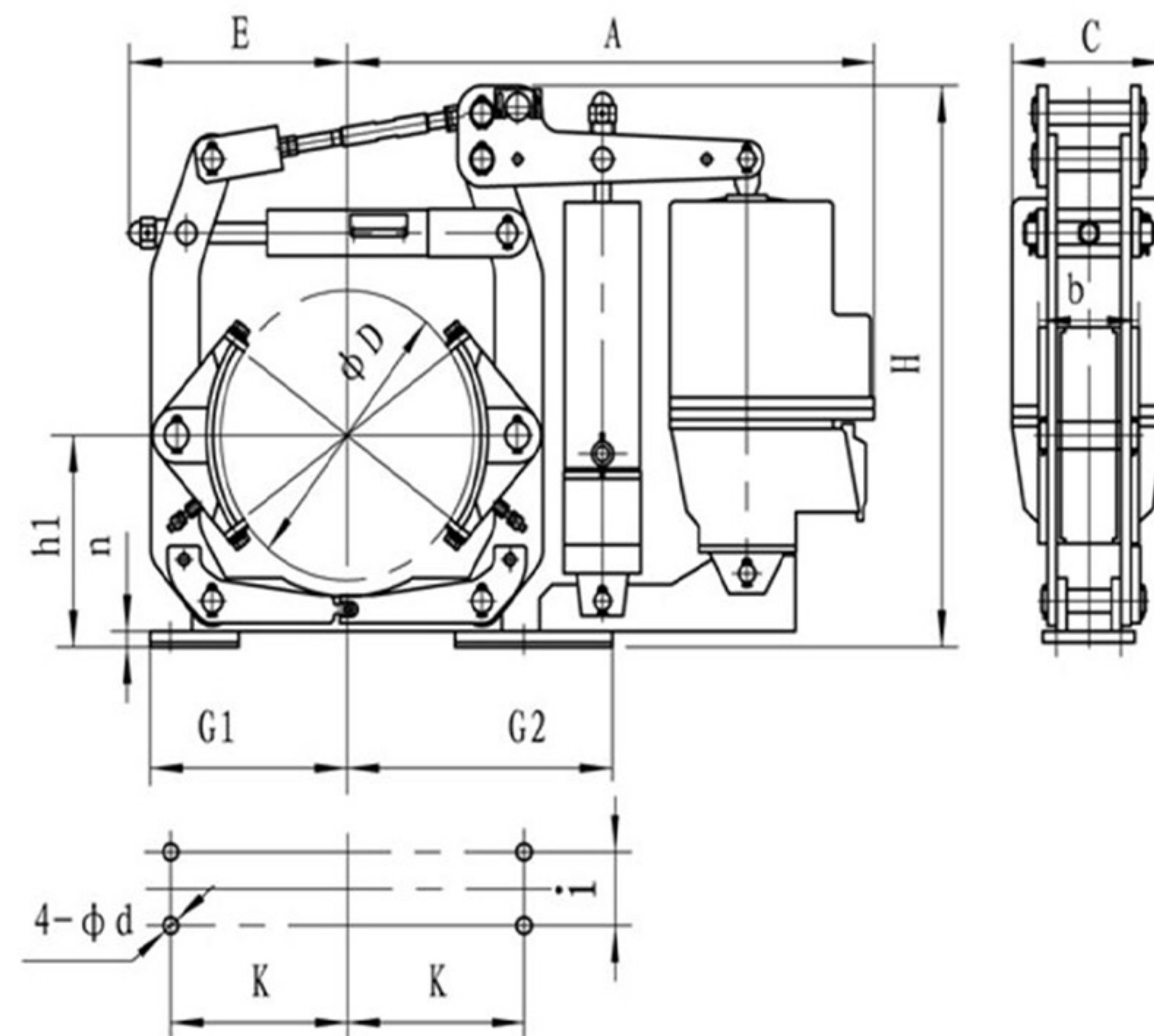
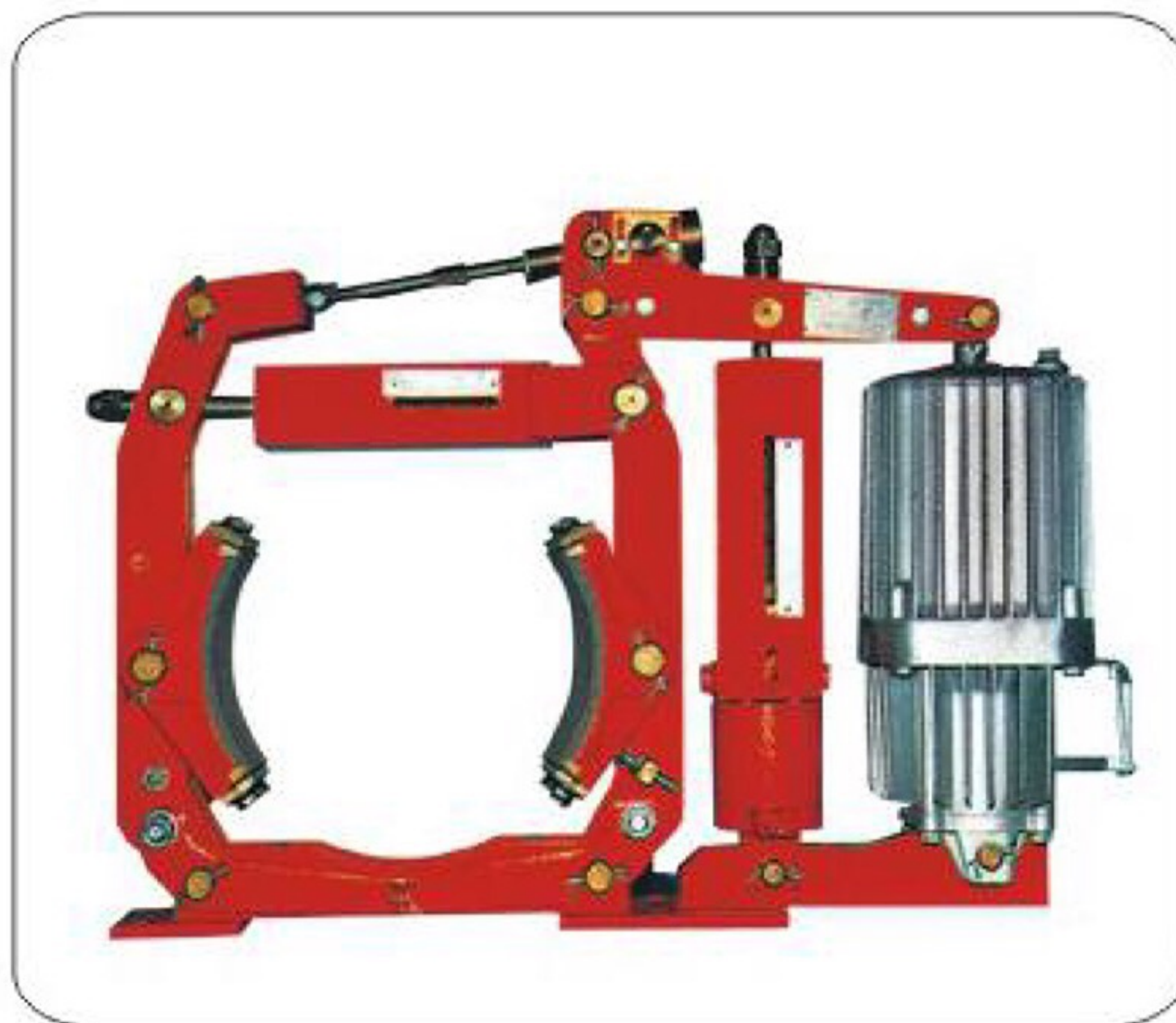


Electro-Hydraulic Brakes Applied in The Belt Conveyor (Type one)

1) Introduction:

The *TE-E* type two stage hydraulic drum brakes are mainly used for the brake of the crane trolley running mechanism and the working brake of the belt conveyor, which is a two stage brake device. The braking time of the second stage can be adjusted through the one-way speed regulating valve, so the braking is stable, safe and reliable.

2) Overall dimension of *TE-E* series:



3) Main features:

1. stable braking, safe and reliable;
2. The main swing hinge is equipped with self-lubricating bearing, which has high transmission efficiency and long service life;
3. Equipped with equal setback device to prevent the brake pad floating on the brake wheel.

4) Compliance criteria:

Installation dimensions conform to DIN15435 and JB/T7021-2006 standards.

5) Technical data:

Type		Braking torque (Nm)			D	A	E	H	h1	G1	G2	i	k	n	d	b	C	Weight (kg)
Model	Matched thruster	First step braking	Second step braking	Total braking torque														
TE-E200/E23	Ed23/5	35-80	80-150	230	200	490	190	520	160	165	265	55	145	10	14	70	160	42
TE-E200/E30	Ed30/5	80-160	80-155	315	200	500	190	520	160	165	265	55	145	10	14	70	160	46
TE-E200/E50	Ed50/6	120-250	120-250	500	200	535	190	560	160	165	265	55	145	10	14	70	190	56
TE-E250/E50	Ed50/6	160-315	160-315	630	250	580	225	590	190	200	300	65	180	12	18	90	190	90
TE-E315/E50	Ed50/6	200-400	200-400	800	315	655	270	620	230	245	330	80	220	12	18	110	190	123
TE-E315/E80	Ed80/6	315-630	315-630	1260	315	655	270	620	230	245	330	80	220	12	18	110	190	126
TE-E400/E80	Ed80/6	315-630	315-630	1260	400	740	318	720	280	310	420	100	270	14	22	140	190	150

Note: we reserve the right to change the specific model and structure dimensions.

(Type two)

1) Introduction:

The installation dimensions of the brake conform to the DIN15435 and JB/T7021-2006 standards, and the technical requirements conform to the JB/T6406-2006 standard.

Service conditions:

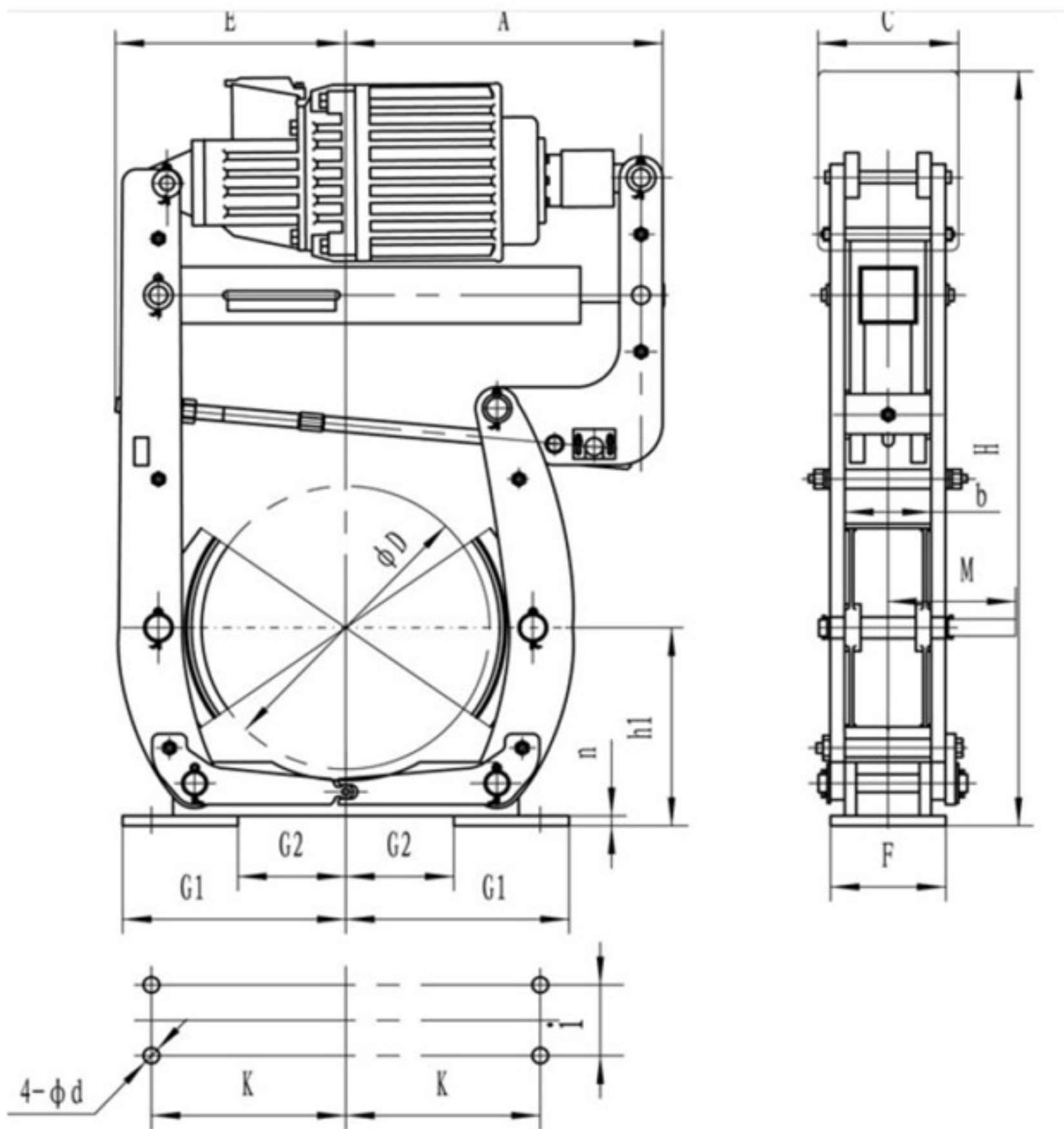
*Ambient temperature: - 20 °C - 50 °C;

*Flammable, explosive and corrosive gases are not allowed in the surrounding working environment, otherwise anti-corrosion products should be used;

*The relative humidity of the air is not more than 90%;

*The altitude of the site is GB755-2000.

2) Overall dimension of TL-L series:



3) Technical data:

Type		Braking torque (Nm)	Setback (mm)	M	A	b	C	D	d	E	F	G1	G2	H	h1	i	K	n	Weight (kg)							
Model	Matche d thruster																									
TL -L200/E23	Ed23/5	200	0.6	165	215	70	160	200	14	180	100	165	75	710	160	55	145	10	46							
TL -L200/E30	Ed30/5	300				255					210				705				52							
TL -L250/E23	Ed23/5	260	0.8	225	310	90	160	250	18	230	110	200	100	795	190	65	180	12	53							
TL -L250/E30	Ed30/5	380												790					61							
TL -L250/E50	Ed50/6	700					190				140			865					69							
TL -L315/E23	Ed23/5	290	1.0	255	350	110	160	315	18	275	120	245	135	895	230	80	220	14	72							
TL -L315/E30	Ed30/5	410												890					78							
TL -L315/E50	Ed50/6	720					190				145			970					81							
TL -L315/E80	Ed80/6	1200																	92							
TL -L400/E30	Ed30/5	390	1.25	280	370	140	160	400	22	340	160	310	150	955	280	100	270	14	98							
TL -L400/E50	Ed50/6	750			440		190							1075					102							
TL -L400/E80	Ed80/6	1250												1065					114							
TL -L400/E121	Ed121/6	1900					240												132							
TL -L500/E50	Ed50/6	900	1.25	350	435	180	190	500	22	400	200	365	185	1245	340	130	325	21	154							
TL -L500/E80	Ed80/6	1650																	159							
TL -L500/E121	Ed121/7	2500					240							1235					176							
TL -L500/E201	Ed201/7	4100																	181							

Note: we reserve the right to change the specific model and structure dimensions.

Safety Brakes Applied in The Belt Conveyor

1) Introduction:

The *SBD-A* series hydraulic safety (emergency) brake is a high power braking device used on low speed shaft (reel shaft). It can be widely used for emergency lifting of large and medium scale cranes, port loading and unloading machinery and low speed shaft of boom boom mechanism.

Working braking and emergency safety braking of mine hoist, hoist and high-power inclined belt conveyor, safety braking of driving mechanism of cable car and cable crane, safety (emergency) braking of low speed shaft of lifting mechanism of casting crane and other special cranes.

2) Main features:

- *Normally closed design, safe and reliable; special disc spring applied force braking, hydraulic drive release (see hydraulic station sample for hydraulic station selection).

- *Sensitive action and short closing time.

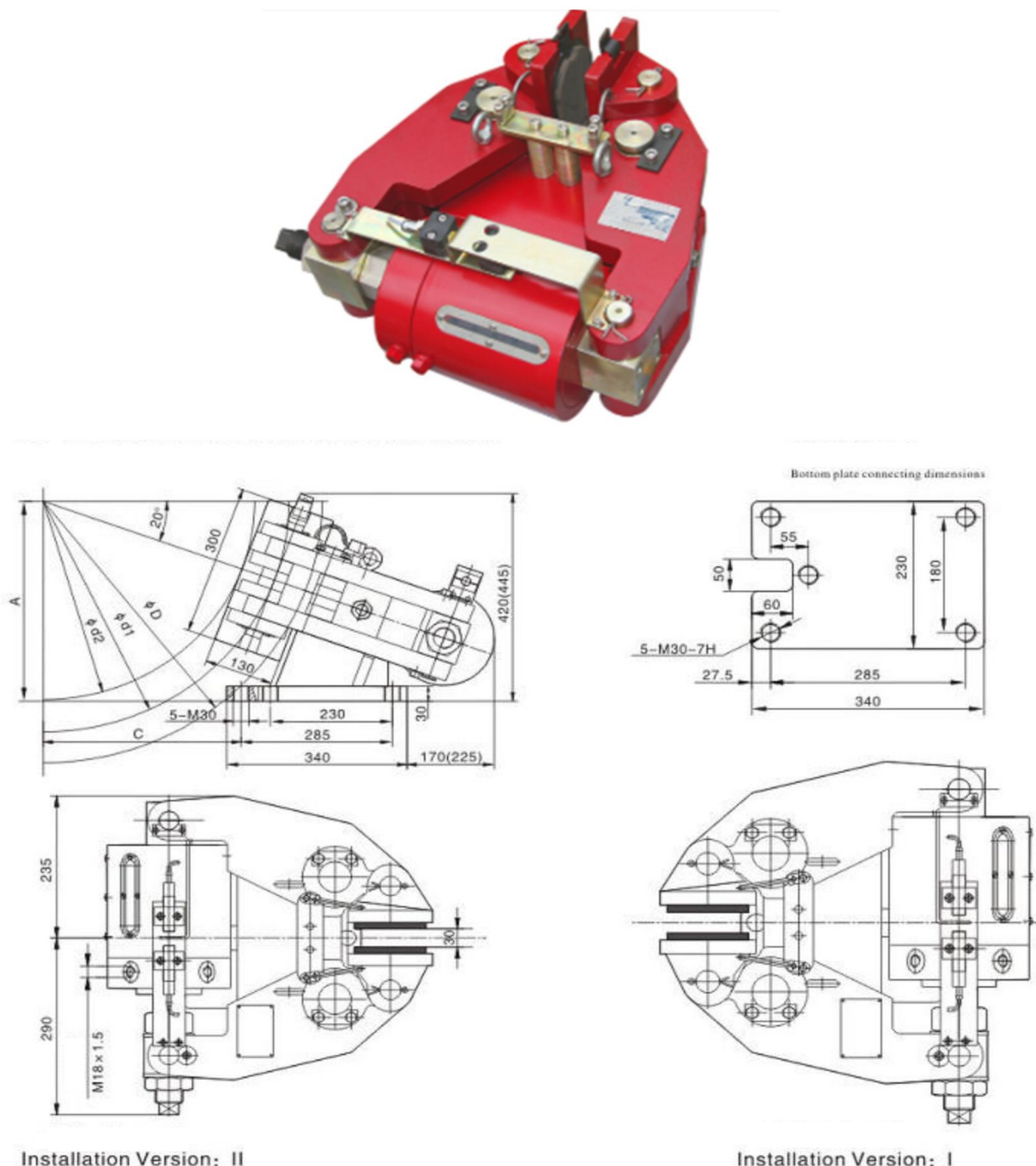
- *Switches such as opening limit, pad wear and limit limit can be selected for signal display or interlock protection.

- *High performance asbestos free hard friction pad, stable friction coefficient, no damage to the brake disc, and insensitive to water medium and salt spray (sea water).

- *Reasonable seal structure design and imported famous seal. Good effect and long life.

- *Flexible installation position, easy to use, adjust and maintain.

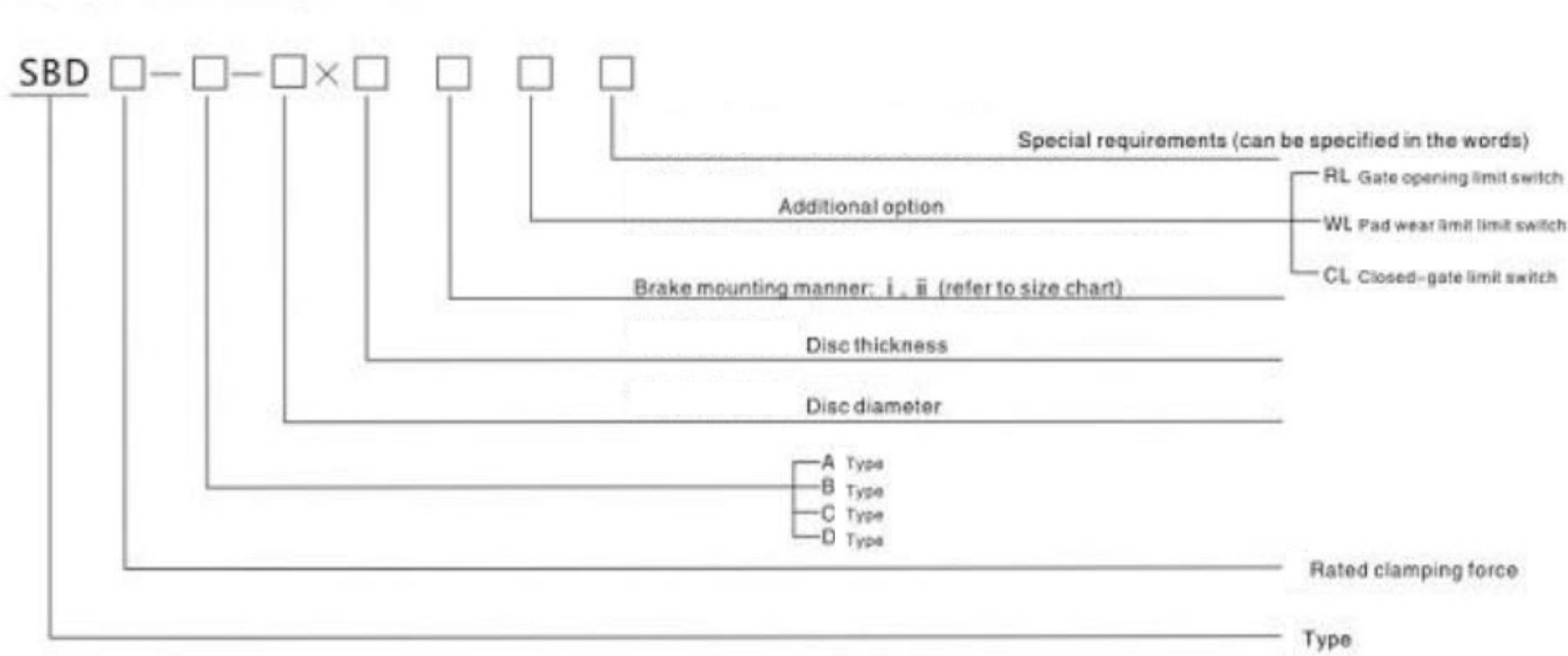
3) Overall dimension of *SBD-A* series:



4) Technical data:

Type	Total clamping force (KN)	Braking force (KN)	Cylinder pressure (BAR)	Oil volume (ML)	Released clearance (MM)	Weight (KG)	A(mm)	C(mm)	d1(mm)	d2max (mm)	D(mm)
SBD100-A	100	72	80	90	0.75-1.5	195	$0.171 \times \phi D + 220$	$0.470 \times \phi D - 127$	$\phi D - 135$	$\phi D - 270$	$\phi 800 \leq \phi D \leq \phi 1800$
SBD125-A	125	90	90	90	0.75-1.5	195					
SBD160-A	160	115	110	75	0.75-1.25	195					
SBD200-A	200	144	100	120	0.75-1.5	235					
SBD250-A	250	180	120	100	0.75-1.25	235					
SBD315-A	315	220	110	160	0.75-1.25	260					

5) Model significance:



6) Related items:



1) Introduction:

SB series hydraulic safety (emergency) brakes are a kind of high power braking device used on low speed shaft (reel shaft), which can be widely used for emergency safety braking of large and medium scale cranes, port loading and unloading machinery and low speed shaft of boom pitching mechanism.

Working braking and emergency safety braking of mine hoist, hoist and high-power inclined belt conveyor, safety braking of driving mechanism of cable car and cable crane, safety (emergency) braking of low speed shaft of lifting mechanism of casting crane and other special cranes.

2) Main features:

1. Normally closed design, safe and reliable; special disc spring force braking, hydraulic drive release;
2. Quick action and short closing time;
3. It can be equipped with opening limit switch and liner wear limit switch to display the fault of interlock protection box (when PLC control is adopted);
4. High performance asbestos free hard friction pad, stable friction coefficient, no damage to the brake disc, and insensitive to water medium and salt spray (sea water);
5. Reasonable seal structure design and imported famous seal, long service life;

- 6. Flexible installation position, easy to use, adjust and maintain.
- 7. Optional hydraulic station.

3) Overall dimension:



4) Technical data:

Type	Clamp force (KN)	Release Pressure (MPa)	Oil cylinder volume(ml)	Clearance (mm)	Friction coefficient	Requested bolts; Performance class; Installation torque	Weight bracket excluded (kg)
SB50	50	11	30	1-2	0.36	8-M20、10.9、680	90
SB100	100	12	50	1-2	0.36	8-M24、10.9、1200	150
SB160	160	12	70	1-2	0.36	8-M30、10.9、2200	310
SB250	250	13	95	1-2	0.36	8-M36、10.9、354	452
SB315	315	14	115	1-2	0.36	8-M36、10.9、3540	672
SB400	400	12	170	1-2	0.36	8-M48、10.9、7400	1100

5) Dimension table (mm):

Type	A	a1	a2	a3	b1	b2	B	C	d	k	p	L	E	W	H	H1
SB50	77	77	90	38	38	38	154	150	20.5	56	102	300	240	110	310	80
SB100	95	95	105	45	55	45	190	180	25	71	102	348	286	140	360	85
SB160	110	120	135	65	70	65	260	235	31	87	106	412	370	170	410	95
SB250	130	120	160	75	80	75	300	275	37	87	106	456	370	170	470	110
SB315	140	175	205	85	90	82.5	335	330	37	137	106	476	410	270	500	110
SB400	170	180	220	120	110	110	440	420	50	137	142	602	546	270	560	115

6) Relative dimension of brake disc (mm)

Type	b			D	d1	d2
SB50	30	36	40	≥500	D-120	D-300
SB100	30	36	40	≥500	D-150	D-380
SB160	30	36	40	≥600	D-180	D-440
SB250	30	36	40	≥600	D-180	D-480

SB310	30	36	40	≥1200	D-280	D-600
SB400	30	36	40	≥1800	D-280	D-660

Note: d1= the theoretical friction diameter
d2= max allowable or hub diameter
D: if need other disc diameters, please contact us

7) **Order sample**

*SB250-2200*40* denotes that rated clamping force for 250KN, brake disc diameter is 2200 mm, plate thickness for 40mm.

Belt Brake

1) **Overview:**

DZ series belt brake is mainly used for braking slewing, lifting and pitching mechanism of marine crane.

2) **Main features:**

Safe and reliable use, stable braking, high action frequency; spring braking, hydraulic release; simple and compact overall structure, light weight; the main swing hinge is equipped with self-lubricating bearing, high transmission efficiency, long service life, no lubrication in the process of use; no asbestos brake pad, green environmental protection.

3) **Service conditions:**

- *Ambient temperature: - 20 °C - 40 °C
- *Outdoor rain and snow erosion or corrosive gases and media should use anti-corrosion products.

4) **Technical data:**

Type		Braking torque (Nm)	Oil pressure (MPa)	Working stroke (mm)	Setback (mm)	Weight (Kg)
Brake	Matched hydraulic cylinder					
DZ400-1	HC215C	6815	2.45	50	3	217
DZ400- II						
Type		Braking torque (N.m)	Oil pressure (MPa)	Working stroke (mm)	Setback (mm)	Weight (Kg)
Brake	Matched hydraulic cylinder					
DZ480- 1	HC305A	9280	18.2	50	1.5	120

5) **Configuration:**



6) **Installation diagram:**

