Stable performance of the disc brakes which withstand frequent uses.
These brakes do not require an adjustment while they are in use, and their repairs are simple.
While their braking forces may be arbitrarily adjusted, the range of braking force is widened.
These brakes are resistant to dust and wetting, and withstand high ambient temperatures.
Their prices are low, and their deliveries are made promptly.

● **Calculation on the braking torque**

Braking torque

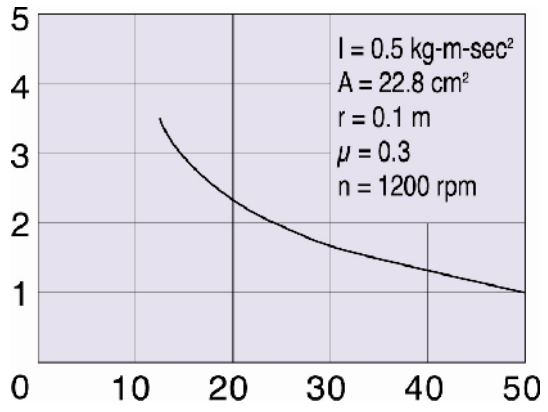
$T = 2 \mu A P r$

$r = 0.5 d - 0.03$

T : Braking torque per one brake kg-m
μ : efficient of friction. μ0.3
A : Area of cylinder cm2
P : Operating pressure kg / cm2
r: Effective braking radius m
d : Outside diameter of disc m

Stopping time

$$t_B = \frac{nI}{30TN} = \frac{nI}{60\mu APrN} = \frac{n\,GD^2}{120\,TgN}$$



t_B : Stopping time sec
I : $GD^2 / 4g$ Moment of inertia kg m sec^2
n : Number of initial revolutions rpm
N : Number of brakes used at the same time
g : 9.8 m / sec^2

Disc temperature

The disc temperature goes up at the time of braking. Although in many cases, the temperature need not be taken into account, when rotary bodies involving large energies are frequently braked, or when this brake is continuously used as a constant torque brake, the normal working temperature of the disc should be calculated according to the following equation lest, 200 ay be exceeded at all times .

a. Braking objects in linear motion

$$E = \frac{WV^2}{2g} \times f$$

E : Energy generated kg m / min
W : Weight kg
V : Speed m / sec
f : Braking frequency rpm / min
g : 9.8 m / sec^2

DBF
DISC BRAKES CALIPER air applied spring released

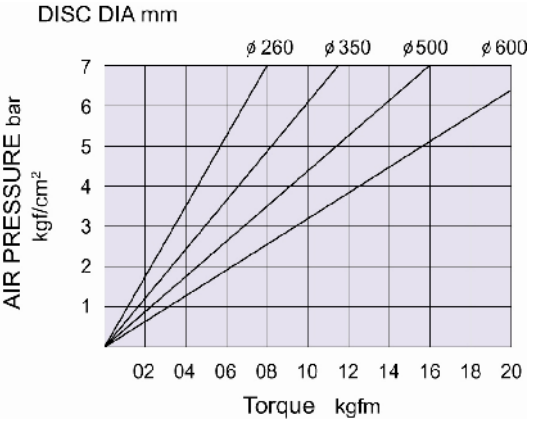
NIIKA®

The DBF is a type of small brake which bottom is stationary,
adapts differently way of installation,
Also can use in the brake of beeline movement.
Big friction area can extend the cycle of maintenance and long life.
If it installs certain brakes on one disc, torque also enlarge
along with it certain time

The **DBF** series disk brake is suitable for all thickness of the disc by changing the special spacer.

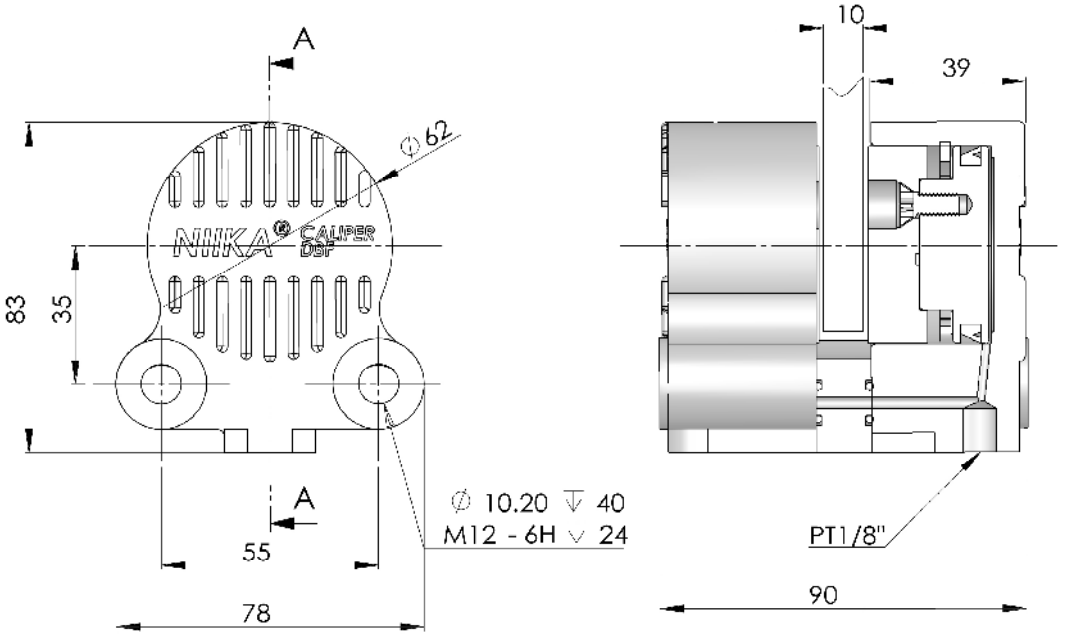
Size	**DBF 10**
Maximum air pressure	7 kg/cm^2
Braking force 5 kg/cm^2 μ=0.33	64 kgf
Areas of cylinders	19.63 cm^2
Disc O. D. mm	220↑
Disc thickness	10 mm
Unit Weight	2 kg

● **Torque versus Pressure**



Standard DBF for disc thickness 10 mm but can modify to suit disc thickness up to 15MM.

APPROXIMATE DIMENSION



Warning : The initial torque on new units can be 30% to 50% less then the catalogue value until the friction facing and friction disc are lapped or worn in.

NIIKA Limited reserves the right to modify or change the design without prior notice.

DBG
DISC BRAKES CALIPER air applied spring released

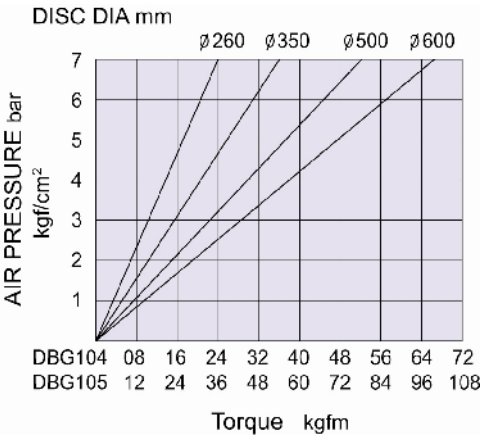
NIIKA®

As a type of economical brake, it can provide stably and effective power of braking.
The vertical installation can saves the space and the heat of rubbing surface can dissipate rapidly.
The friction part is easy to replace, and it does not contain any asbestos,
Brake-disc thickness covers from 10mm to 20mm.
To control the deceleration of moving parts for small
and medium powers, the best solution is the combination of
a brake disc with one or more pneumatic calipers.

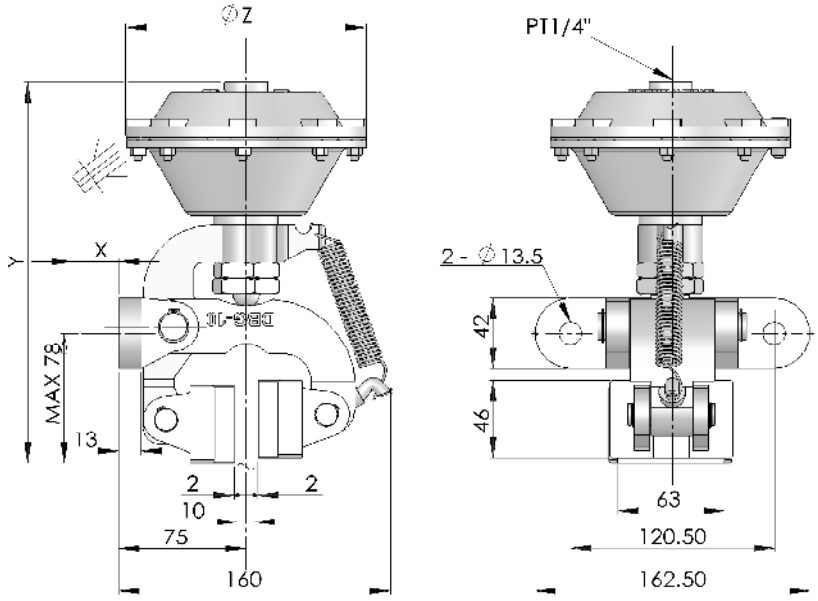
Torque Formula : Braking Torque (kgm) =Braking Force (kg) x Effective Disc Radius (Actual)(mm)

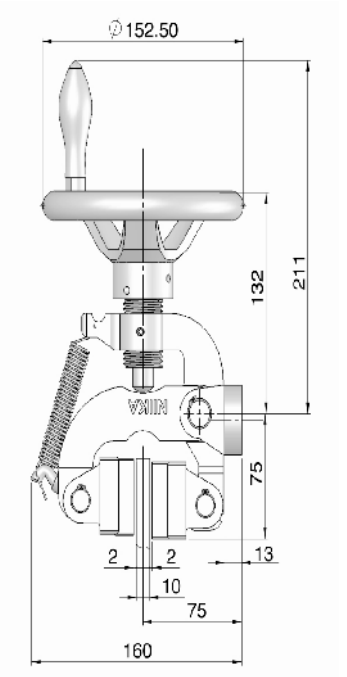
Size	DBG 104	DBG 105
Maximum under overload	7 kg/cm²	7 kg/cm²
Compression ratio	0.74	0.74
Disc thickness	10 mm	10 mm
Disc O. D. mm	200↑	200↑
Unit Weight	5.5 kg	6 kg

● **Torque versus Pressure**



APPROXIMATE DIMENSION





DBG 10 M

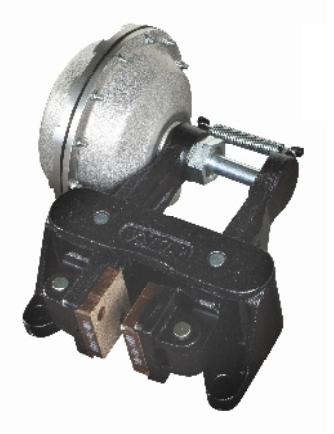
Size	X	Y	φZ
DBG 104	18	145	142
DBG 105	36	160	177

Warning : The initial torque on new units can be 30% to 50% less then the catalogue value until the friction facing and friction disc are lapped or worn in.
NIIKA Limited reserves the right to modify or change the design without prior notice.

DBH
DISC BRAKES CALIPER air applied spring released

NIIKA®

The type brake is for horizontal-type installation,
it can provides approximately 2 times
of braking powder than vertical installation.
Add the expandable shrapnel to guarantee the brake balance,
The friction part is easy to replace, and it does not contain any asbestos,
To control the deceleration of moving parts for small
and medium powers, the best solution is the combination of
a brake disc with one or more pneumatic calipers.



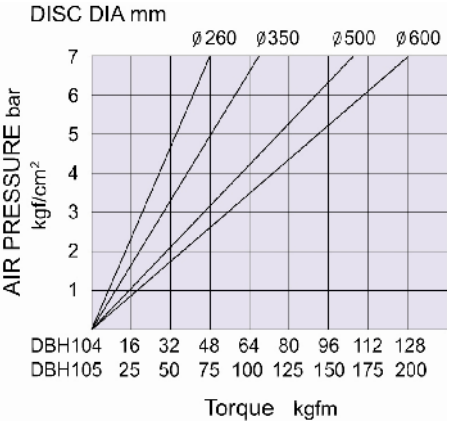
LEFT
TYPE

Torque Formula : Braking Torque (kgm) =Braking Force (kg) x Effective Disc Radius (Actual)(mm)

Size	DBH 104	DBH 105
Maximum under overload	7 kg/cm^2	7 kg/cm^2
Compression ratio	1.83	1.83
Disc thickness	10 mm	10 mm
Disc O. D. mm	200↑	200↑
Unit Weight	8.5 kg	9 kg

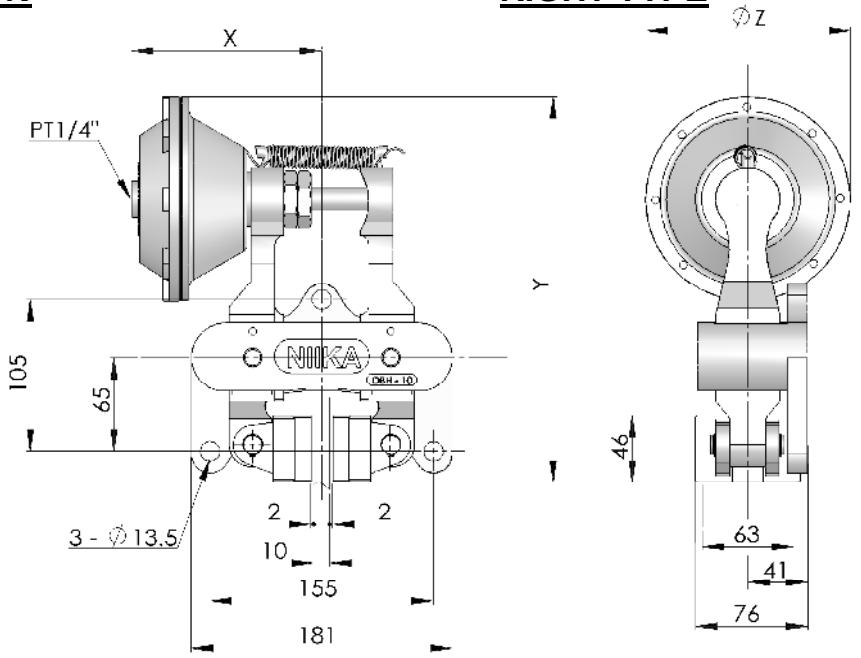
Every **horizontal** caliper separate into the left and right type.
Please indicate left or right side type when order.

● **Torque versus Pressure**



APPROXIMATE DIMENSION

RIGHT TYPE



Size	X	Y	φZ
DBH 104	**132**	**267.5**	**142**
DBH 105	**152**	**285**	**177**

Warning : The initial torque on new units can be 30% to 50% less then the catalogue value until the friction facing and friction disc are lapped or worn in.
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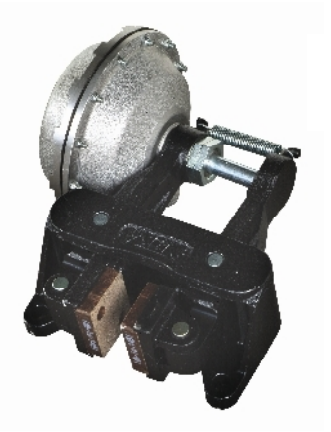
DBH
DISC BRAKES CALIPER air applied spring released

NIIKA®

The type brake is for horizontal-type installation,
it can provides approximately 2 times
of braking powder than vertical installation.
Add the expandable shrapnel to guarantee the brake balance,
The friction part is easy to replace, and it does not contain any asbestos,
To control the deceleration of moving parts for small
and medium powers, the best solution is the combination of
a brake disc with one or more pneumatic calipers.



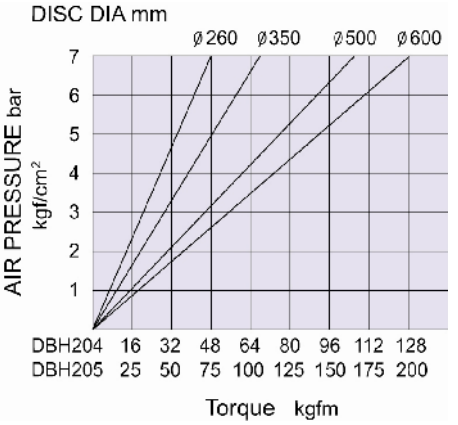
LEFT
TYPE

Torque Formula : Braking Torque (kgm) =Braking Force (kg) x Effective Disc Radius (Actual)(mm)

Size	DBH 204	DBH 205
Maximum under overload	7 kg/cm²	7 kg/cm²
Compression ratio	1.83	1.83
Disc thickness	20 mm	20 mm
Disc O. D. mm	200↑	200↑
Unit Weight	9 kg	9.5 kg

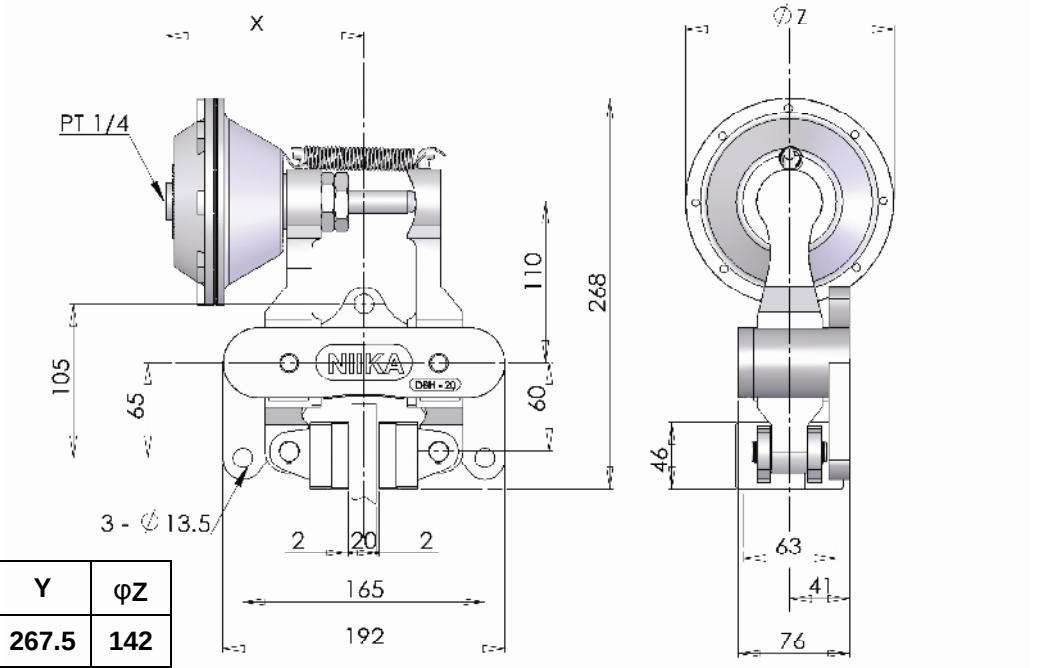
Every **horizontal** caliper separate into the left and right type.
Please indicate left or right side type when order.

● **Torque versus Pressure**



APPROXIMATE DIMENSION

RIGHT TYPE



Size	X	Y	φZ
DBH 204	135	267.5	142
DBH 205	155	285	177

Warning : The initial torque on new units can be 30% to 50% less then the catalogue value until the friction facing and friction disc are lapped or worn in.

NIIKA Limited reserves the right to modify or change the design without prior notice.

DSH FAIL SAFE BRAKE
SPRING APPLIED AIR RELEASE

NIIKA®

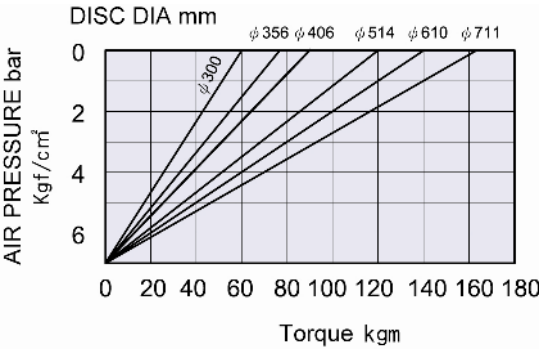
A spring-applied fail safe brake for dry-running, which can be used for both holding and dynamic applications. All types of Fail-Safe brakes therefore are offered with pneumatic released but emergency release by means of manual lever or integrated screws. Furthermore the amount of maintenance required for both the compressed air supply system and for the pneumatic brakes is small.

RIGHT TYPE

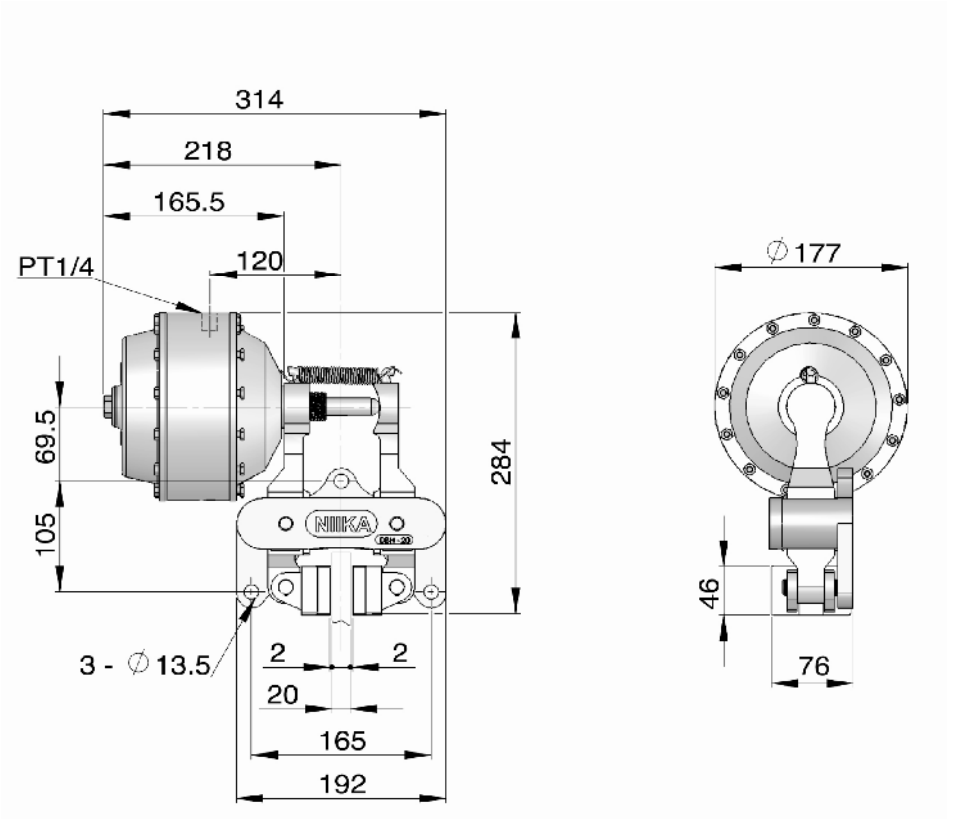
Torque Formula : Braking Torque (kgm) =Braking Force (kg) x Effective Disc Radius (Actual)(mm)

Model	DSH 205
DISC THICKNESS	20 MM
MAX AIR PRESSURE kg/cm²	7
DISC OD MM	260↑
WEIGHT	19 KGS

● **Torque versus Pressure**

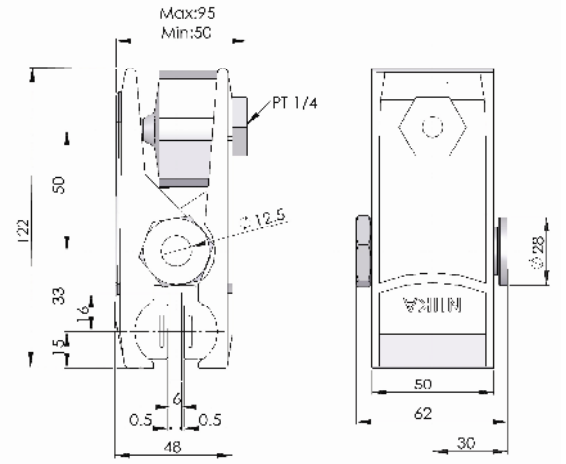


APPROXIMATE DIMENSION **LEFT TYPE**

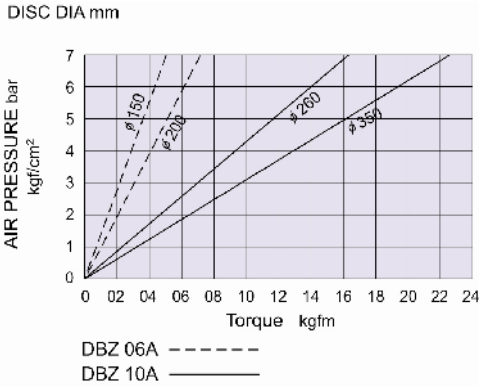


DBZ-06A DISC BRAK
AIR Disc Brake

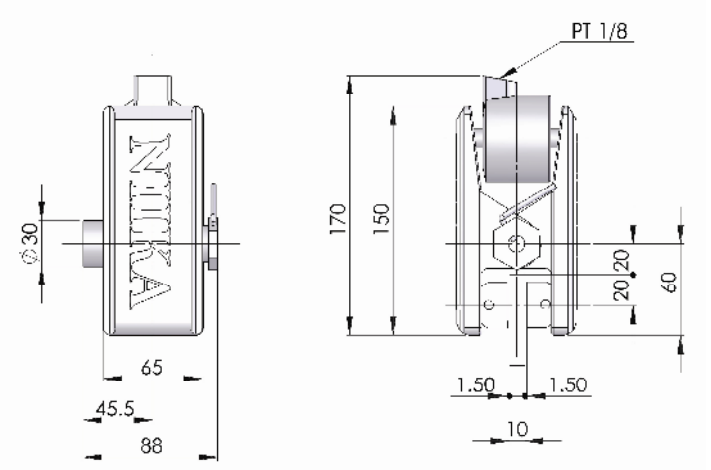
As a type of small brake, the installation is flexible, can save more installation space. Application of torque control and brake maintenance specially adapt to the light loading condition. Convenient for release of heat and maintenance, we can supply the model of manual control.



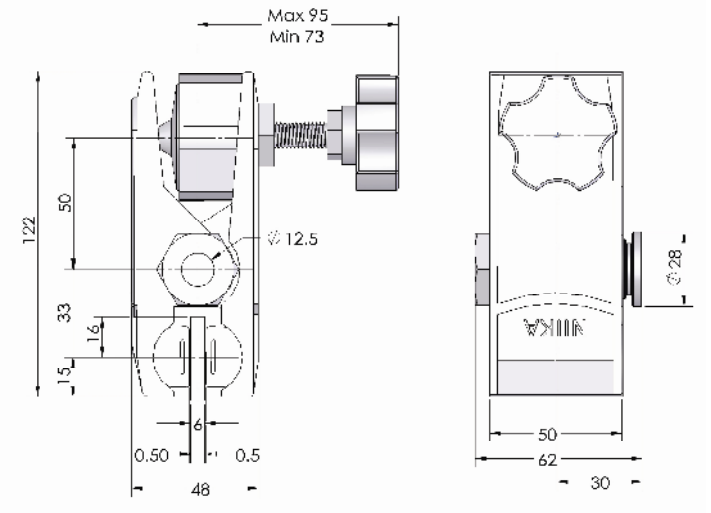
TORQUE VERSUS PRESSURE



DBZ-10A AIR Disc Brake



DBZ-06M MANUAL DISC BRAKE



DBM oil hydraulic disc brake is mainly power by brakes oil, and can also power by air-actuated matched with hydraulic booster.

The ordinary brakes fluid is required (DOT3, DOT4 or above)

The DBM brakes do not require an adjustment while they are in use, and it's repairs are simple.
The DBM brake brakes are resistant to dust and wetting, and withstand high ambient temperatures.

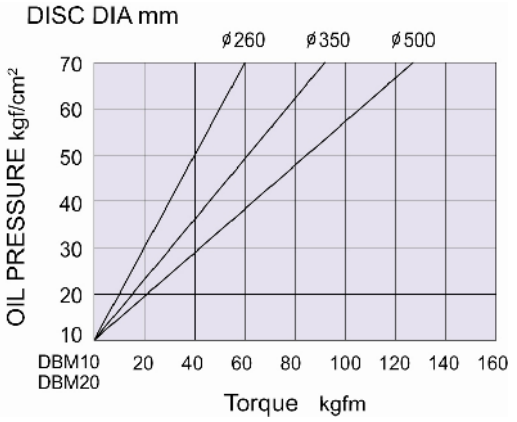
DBM brake separate into left and right type, which depends on position of oil- inlet. Please indicate left or right side type when order.

LEFT TYPE

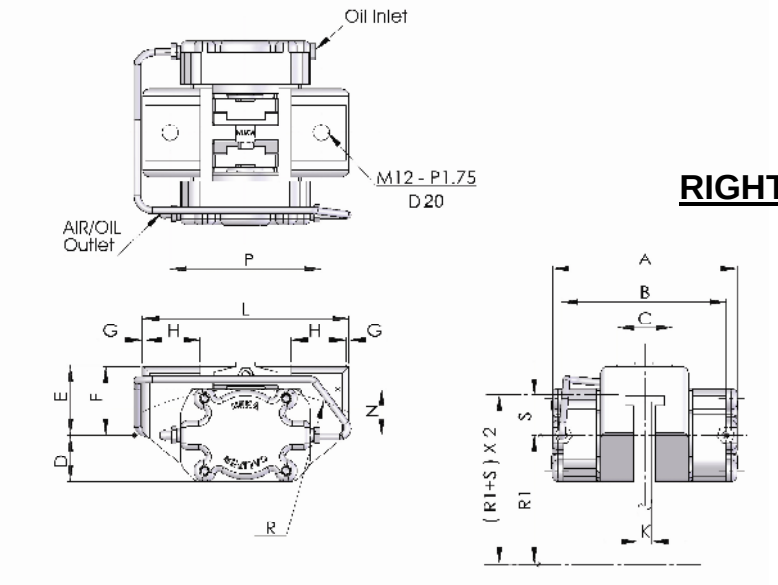
Size		DBM 10	DBM 20
Sizes of cylinders		2 1/8"	2 1/8"
Area of cylinders		22.88 cm^2	22.88 cm^2
Amount of operating Oil		About 2.5cc	About 2.5cc
Operating oil pressures	Normal working	50 kg/cm^2	50 kg/cm^2
	Maximum	70 kg/cm^2	70 kg/cm^2
Disc thickness		10 mm	20 mm
Disc O. D. mm		200↑	200↑
Unit Weight		5 kg	5.5 kg

DBM brake separate into left and right type, which depends on position of oil- inlet. Please indicate left or right side type when order.

● **Torque versus Pressure**



DIMENSION



RIGHT TYPE

Size	A	B	C	D	E	F	G	H	K	L	N	P	R	S
DBM 10	135	118	40	34	51	50	2	40	10	150	34	110	350	30
DBM 20	145	128	50	34	51	50	2	40	20	150	34	110		30

Warning : The initial torque on new units can be 30% to 50% less then the catalogue value until the friction facing and friction disc are lapped or worn in.

NIIKA Limited reserves the right to modify or change the design without prior notice.

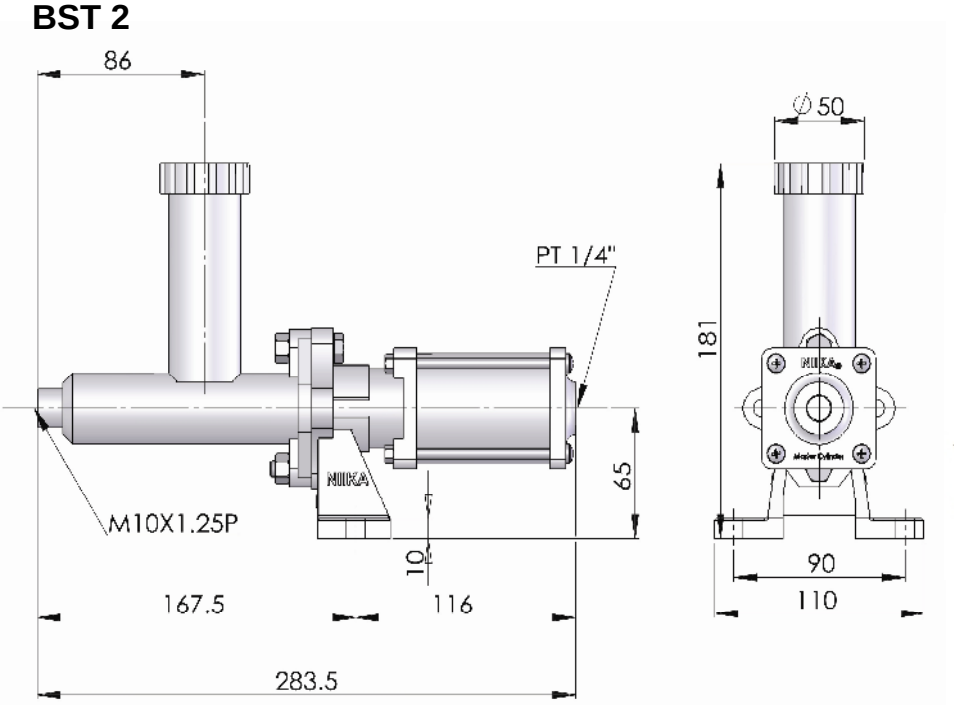
BST BOOSTER CYLINDER

The Push rod of the master cylinder for automotive use is activated by generate hydraulic pressure and actuate the brake.
The brakes fluid is required (DOT3, DOT4 or above) in automobiles.
If a new master cylinder is used, be sure to remove the check valve to eliminate remaining pressure.

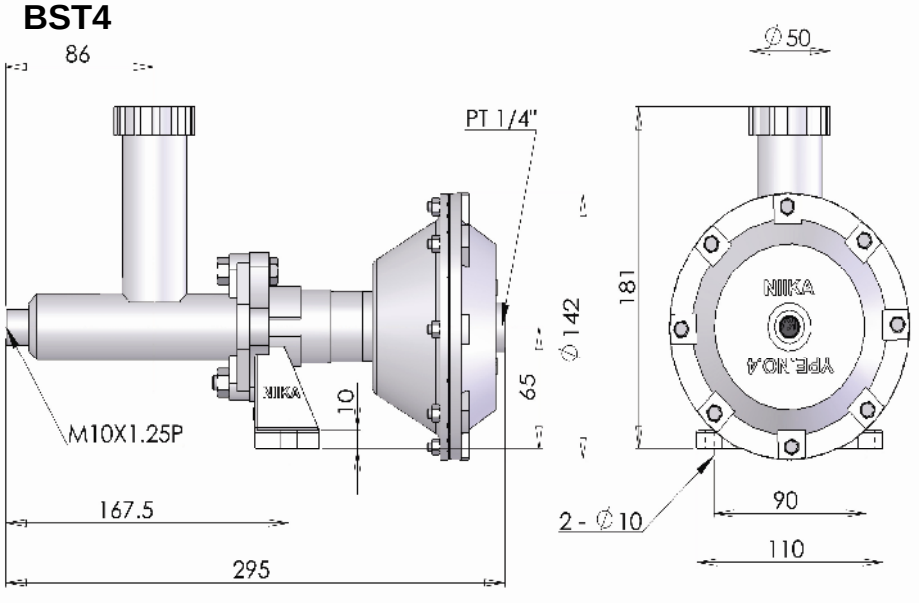
Size	BST 2	BST 4
Sizes of cylinders	2”	4”
Pressure boost ratio	7	14
Fluid delivery	9 cc	12 cc
Weight	1.6 kg	2.5 kg

APPROXIMATE DIMENSION

BST 2

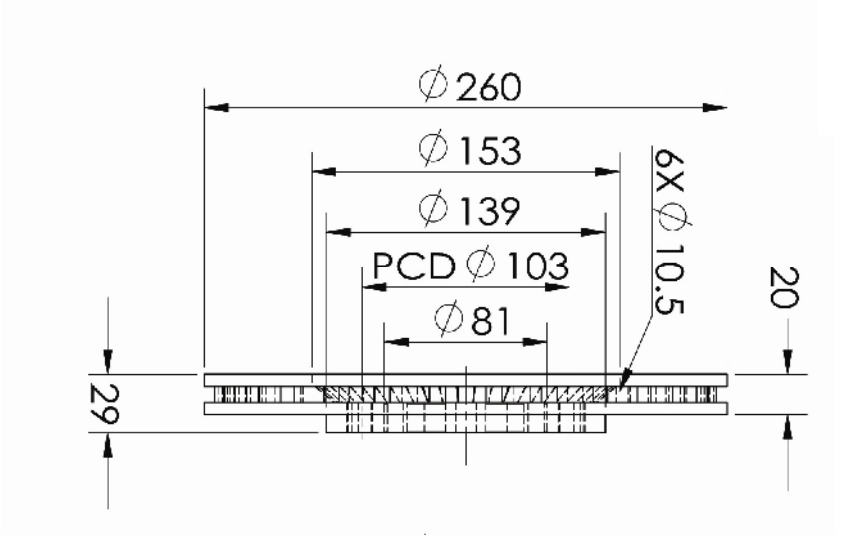


BST4

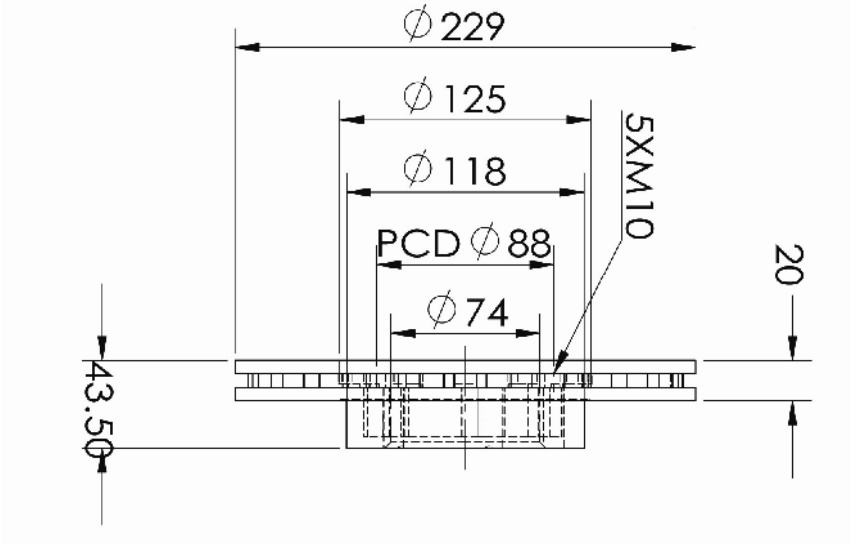


DISC-D260

Niika has developed 4 different sizes of disc for customer easy to use our caliper disc brake.

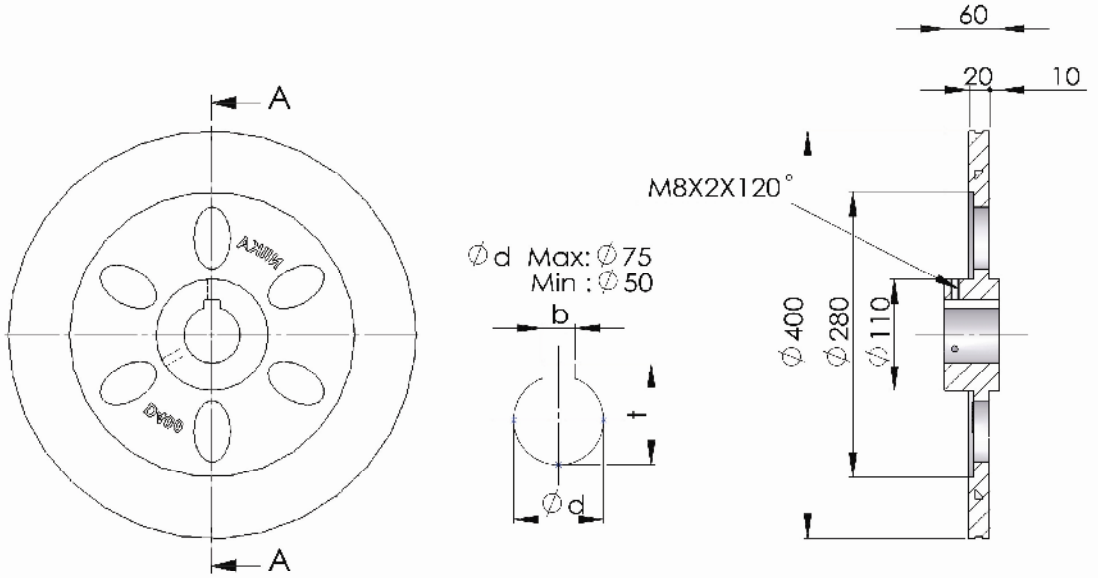


DISC-D230



DISC-D400

Bore range from 50MM-75MM. Standard bore 70MM.



DISC-D500

Bore range from 50MM-75MM. Standard bore 70MM.