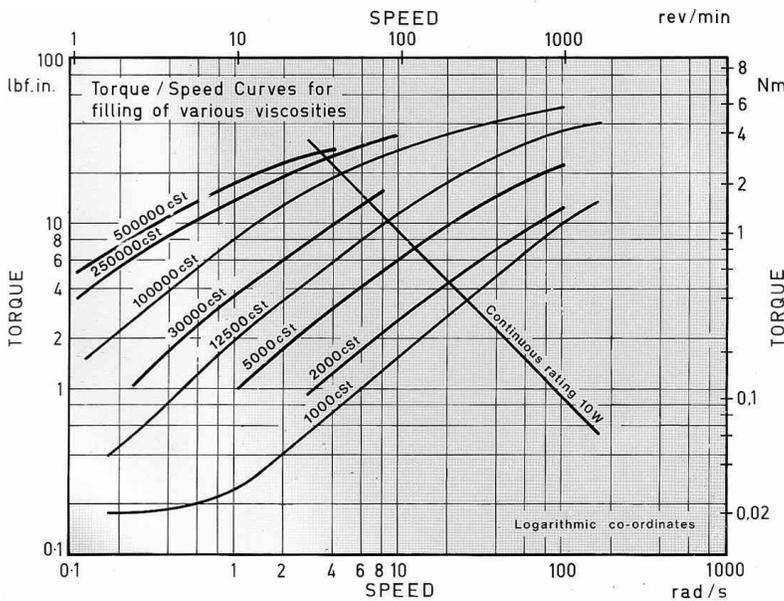
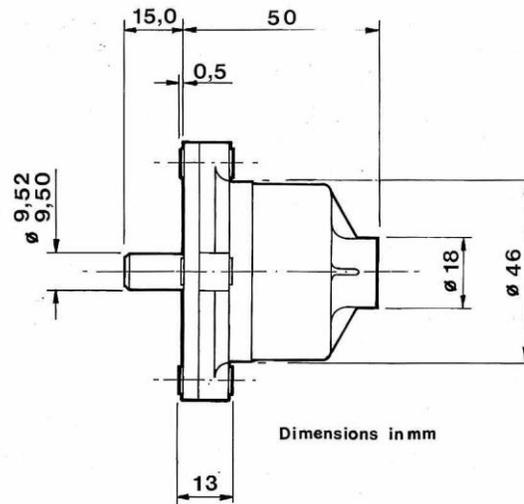
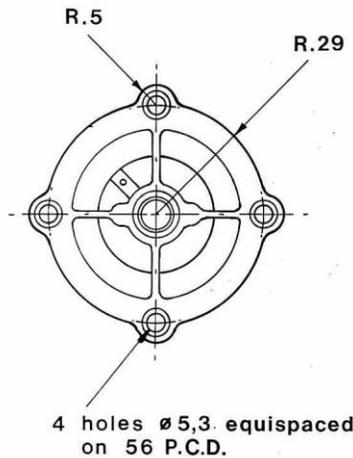
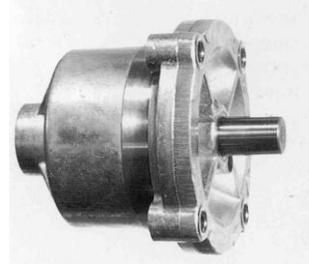


KINETROL LTD. Model X-CRD Dashpot

SPECIFICATION

Rate	Fixed Rate See curves below ($\pm 10\%$)
Ambient temperature range	0° to 60°C
Frictional torque	0.3 lbf.ins / 0.034 Nm typical
Shaft material	Stainless steel 303 S31
Body material	Zinc alloy Mazak 3
Weight	.78 lbs/ .35 kg



The X-CRD continuous rotation dashpot is value engineered to suit high volume applications. These are ideal for damping moving parts in light machinery.

Static friction is higher than for other dampers but is not significant for most applications. This damper is designed to react pure torsion and therefore side or axial loads should be avoided.

Viscosity should be specified when ordering to the required characteristics. Performance curves for different viscosities are shown in chart.

VISCOSITIES AVAILABLE

1,000; 2,000; 5,000; 12,500; 30,000; 100,000; 250,000; 500,000 cSt

ORDERING CODES

X-CRD-(Filling Viscosity)
Example: X-CRD-30,000 has 30,000 cSt fluid

Kinetrol LTD. Rotary dashpots distributed through:

KINETROL LTD.

Model X-CRD Dashpot

TEMPERATURE EFFECTS

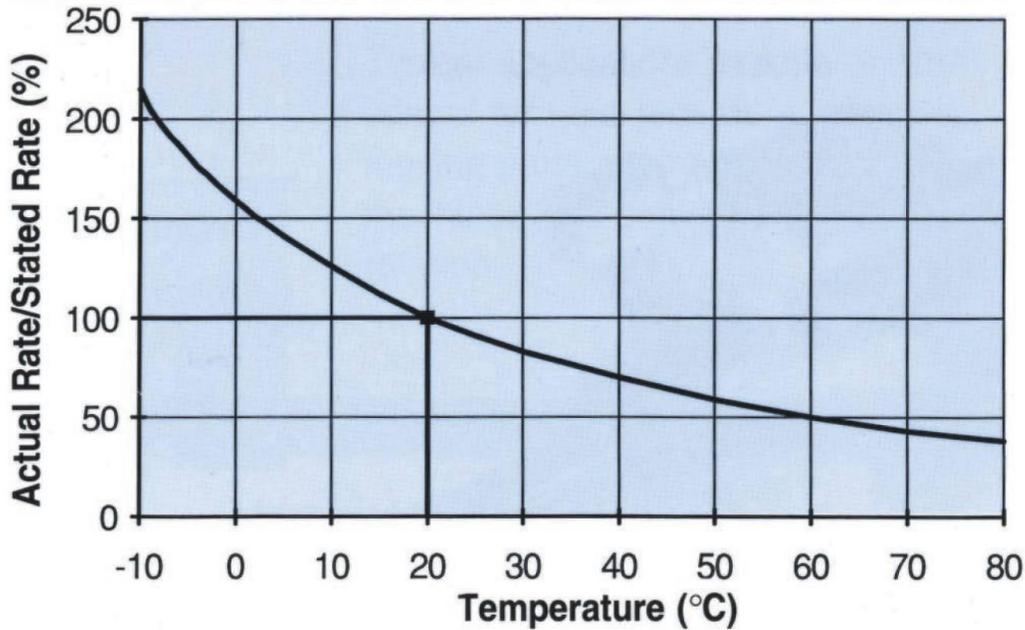
Damping rate is reduced by increases in fluid temperature (and increased by reduction in temperature). The graph below indicates the percentage change in damping rate with temperature, relative to the rate quoted at 20°C.

Dashpots compensated for temperature change, to keep damping rate constant, can be special ordered.

In addition to the effect of ambient temperature, heating of the dashpot above ambient is caused by the power absorbed by the damping action. Power dissipation limits are given for 20°C ambient. At temperatures above 20°C these power limits are de-rated by a factor:

$$\frac{(T_L - T_A)}{(T_L - 20)}$$

where T_L = Limit Temperature and T_A = Ambient Temperature



CONVERSION FACTORS

1 rad = 57.3°
1 Nm = 8.85 lbf.ins

1 RPM = 0.1047 rad/s
1 lbf = 4.45 N

1 lbf.ins = 0.113 Nm
9.81N = 1 kgf = 1 kp

GENERAL NOTES

1. For calculation purposes the rotation speed of the dashpot is given in RADIANS per second (1 radian = 57.3°). The significance of a radian is that if, for example, a 1 meter radius lever rotates through 1 radian, the end of the lever moves 1 meter, a distance equal to the radius.
2. Damping RATE is defined here as TORQUE divided by ROTATION SPEED. Note that a dashpot with a high rate may not necessarily be working at a high torque. For example, a dashpot may have a rate of 100 Nm/rad/s; however, it may be rotated at 1/10 rad/s so that the damping torque produced is 10 Nm which is not numerically equal to the rate.

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