



Before you make your cut:

- **⚠ WARNING!** To avoid kickback make sure Pipe / Material is Properly Supported (see reverse.)
- Review Equipment Owner's Manual
- Inspect your Diamond Blade
- Inspect your Saw
- Review Proper Sawing Technique
- Secure Personal Protective Equipment

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Reactive Forces including Kickback

WARNING!

Reactive forces may occur at any time the cutting wheel on a cut-off machine is rotating. The powerful force used to cut through a workpiece can be reversed and work against the operator. If the wheel is slowed or stopped by frictional contact with any solid object or by a pinch or binding, reactive forces can occur instantly and may result in the operator losing control of the cut-off machine, which, in turn, may result in serious or fatal injury.



An understanding of the causes of these reactive forces may help you avoid loss of control. Reactive forces are exerted in a direction opposite to the direction in which the wheel is moving at the point of contact or of pinching/binding. If the wheel is slowed solely by frictional contact with a solid object, such as the workpiece, the resulting reactive forces are normally moderate and readily controllable by an operator who is holding the machine properly. If, however, the wheel is abruptly slowed or stopped by a pinch or severe bind, the reactive forces may be substantially greater. The greater the force generated, the more difficult it will be for the operator to control the cut-off machine. Loss of control can result in severe personal injury or death.

Pull-away, Climbing, Pinching and Rotational Kickback Forces

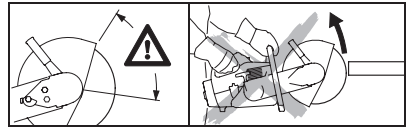
The most common reactive forces are pull-away and climbing. If the contact is at the bottom of the wheel, a cut-off machine will try to pull away from the operator (pull-away.) If the contact is at the front of the wheel, the wheel may attempt to climb the object being cut (climbing.)

Pinching occurs when the piece being cut closes on the wheel. A severe binding may also occur if the wheel is substantially sideloaded in the kerf or if an improper or damaged diamond wheel begins to wobble or ceases to wobble in the kerf. If the wheel is severely pinched or bound in the upper quadrant, the wheel may be instantly thrown up and back towards the operator with great force in a rotational kickback motion. Such kickback situations can and should always be avoided. Pinching of the wheel can be prevented by proper support of the workpiece. (See below.) Severe binding of the wheel can be prevented by proper cutting techniques, e.g., not sideloading the wheel, and by the use of properly designed, manufactured and maintained wheels.

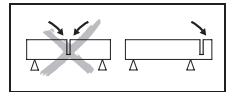
Reducing the Risk of Kickback Injury

WARNING!

To reduce the risk of kickback injury, avoid cutting with the upper quadrant of the wheel where possible. Be especially cautious for a pinching or binding of the wheel in this area, which can cause severe reactive forces in a rotational kickback motion.



Be alert to potential movement of the workpiece or anything else that could cause the cut to close and pinch the wheel. In order to reduce the risk of pinching, support the workpiece in such a way that the cut remains open during the cutting process and when the cut is finished (see illustration.)



Never make a cut that results in a binding of the wheel. If you cannot properly support the workpiece, do not use a cutting-off machine to make the cut; select another tool or cutting technique that is not subject to kickback.

WARNING!

Be particularly alert when cutting a workpiece such as a pipe with a belled end or a pipe in a trench that, if not properly supported, can sag upon completion of the cut, creating a pinch not where you are actually cutting but, rather, at or near the top of the workpiece. If the pinch is in the upper quadrant of the abrasive wheel, kickback can result.

WARNING!

Use wet-cutting whenever feasible, since the water can act as a lubricant in a pinch situation and thus reduce the likelihood of reactive forces occurring and the energy of any such forces that do occur, making it easier to maintain control of the machine.