



Safety Notes for Cutting Tools

Precaution for using cutting tools

Target Products	Precariousness	Countermeasures
General Cutting Tools	⊙ Direct touch to a sharp cutting edge may cause injury.	* When you set up tools to the machine or take tools out of the case, please wear protective gloves.
	⊙ Misuse or inappropriate working conditions may cause tool breakage or dispersion of broken pieces.	* Please use safety items, such as safety glasses and protective gloves. * Please use in the range of our recommended cutting condition. See our catalog or instruction manuals.
	⊙ Excessive impact or heavy wear will increase cutting resistance and may cause tool breakage and dispersion of broken pieces.	* Please use safety items, such as safety glasses and protective gloves. * Early exchanging tools is preferable.
	⊙ Dispersion of heated or prolonged chips may cause injury or burn.	* Please use safety items, such as safety glasses and protective gloves. * For chips removal, please stop the machine beforehand and use safety items, such as safety glasses and protective gloves.
	⊙ Tools and materials reach high temperatures during cutting operation. Direct touch to the tools and materials shortly after cutting may cause burn.	* Please prepare safety items, such as safety glasses and protective gloves.
	⊙ Sparks, generation of heat or chips in high temperature during operation may cause fire.	* Please do not operate around Hazardous zone, in which there is some possibility of fire or explosion. * In case of using oil-coolant, please make sure there is sufficient fire-protection equipment.
	⊙ Lack of dynamic balance during high-speed revolutions leads to vibrations which can make the tool break.	* Please use safety items, such as safety glasses and protective gloves. * Please conduct test-operation before cutting, and confirm that there is no vibration or unusual sound.
	⊙ Direct touch to burrs which were generated on the rough surface of the workpiece may cause injury.	* Do not touch workpiece with bare hand.
Indexable Cutting Tools	⊙ If the inserts or other tool parts are not installed properly, they can fall down or break which may cause injuries.	* Please clean up insert pockets or clamping parts before setting insert. * Please set up inserts with supplied wrench only, and confirm that the inserts or parts are clamped completely. Never use inserts or parts other than those prescribed.
	⊙ If inserts are clamped too tightly by supplementary tools like pipe etc, inserts or body may brake.	* Do not use aids such as pipes. Please set up using supplied wrench only.
	⊙ When tools are used in high-speed revolution, inserts or parts may burst out of the body due to centrifugal force. When handling, please pay special attention to safety.	* Please use in the range of our recommended cutting conditions. See our catalog or instruction manuals.
Milling Cutters and other Milling Tools	⊙ Since milling cutters have sharp edges, direct contact with bare hands may cause injury.	* Please use safety items, such as safety glasses and protective gloves.
	⊙ If a cutter lacks balance, the tool can start to vibrate. The dispersion of broken pieces can cause injuries..	* Please use in the range of our recommended cutting condition. * Accuracy and balance of machine spindle should be checked and adjusted regularly to prevent wear of the bearings due to eccentric rotation..
Drilling	⊙ When drilling a through-bore, it is possible that a disc is created during the drilling procedure that can fly out of the workpiece at a high speed. This is very dangerous since the disc has sharp edges.	* Please use safety items, such as safety glasses and protective gloves. Also attach a cover on a chuck part.
Brazed Tools	⊙ Dispersion or falling down of broken inserts may cause injury.	* Please check that the cutting inserts are brazed firmly before use. * Please do not use brazed tools in the condition that requires high cutting temperature.
Others	⊙ If brazing is carried out many times, the strength of carbide insert is deteriorated and can break easily during cutting.	* Please do not use tools that have been brazed several times. The quality of the tool deteriorates..
	⊙ The tools can only be used for the appropriate application. It may damage tools and machines.	* Please follow our recommended usage for the tools.