			H6	H7	H8	H9	Applicable part	Functional classification		Application example
Parts can move relative to each other	Clearance fit	Loose fit				c9	Part which accommodates a particularly wide gap, or a moving part which requires a gap Part which accommodates a wide gap to facilitate assembly Part which requires an appropriate gap even at high temperatures	Part which for functional reasons requires a large gap { Expands. Large positional error. { Long fitting length		Piston ring and piston ring groove Fitting by means of a loose set pin
		Loose roll fit			d9	d9	Part which accommodates a wide gap, or which requires a wide gap	Cost needs to be reduced. { Manufacturing cost { Maintenance cost		Crank web and pin bearing (side) Exhaust valve box and spring bearing sliding part Piston ring and piston ring groove
				e7	e8	e9	Part which accommodates a fairly wide gap, or a moving part which requires a gap Fairly wide gap and well lubricated bearing Bearing subjected to high temperature, high speed, and high load (high-degree forced lubrication)	Regular rotating or sliding part (Must be well lubricated.)		Fitting of exhaust valve seat Main bearing for crankshaft Regular sliding part stripper bolt MSB (e9)
		Roll fit	f6	f7	f7 f8		Fitting which provides an appropriate clearance and permits movement (high-quality fitting). Regular normal-temperature bearing lubricated with grease or oil	Regular fitting part (is often disassembled)		Part where a cooled exhaust valve box is inserted Regular shaft and bushing Link device lever and bushing
		Tight roll fit	g5	g6			Continuously rotating part of a precision machine under light load Fitting with a narrow gap and which permits movement (spigot, positioning) High-precision sliding part	Part requiring precision motion with almost no gap		Link device pin and lever Key and key groove Precision control valve rod Guide lifter pin (g6)
Parts cannot move relative to each other.	Transition fit	Sliding fit	h5	h6	h7 h8	h9	Fitting which allows movement by hand when a lubricant is used (high-quality positioning) Special high-precision sliding part Unimportant stationary part	Difficult to disassemble without damaging the part.	Fitting force alone is insufficient for transmitting force	Fitting of rim and boss Fitting of gears in a precision gear device Dowel pin MSTH (h7)
		Push fit	h5 h6	js6			Installation part which is compatible with a very small tightening interference High-precision positioning which locks both parts in place while unit is in use Fitting which can be assembled/disassembled using a wooden or lead hammer			Fitting two coupling flanges Governor path and pin Fitting of gear rim and boss
		Striking	js5	k6			Fitting which requires an iron hammer or hand press for assembly/disassembly (A key or other device is required in order to prevent inter-part shaft rotation.) Precision positioning			Fitting of gear pump shaft and casing Reamer bolt
			k5	m6			Assembly/disassembly are the same as the above. Precision positioning which permits no gap at all			Reamer bolt Dowel pin MSTM (m6) Fastening of hydraulic device pistons and shafts Fitting of coupling flange and shaft
		Light press fit	m5	n6			Fitting which requires considerable force for assembly/disassembly Precision stationary fitting (A key or other device is required for high-torque transmission purposes.)		Fitting force along is sufficient for transmitting small force	Fitting of flexible shaft coupling and gear (passive side) Precision fitting Punch SPAS, etc. (m5) Insertion of suction valve and valve guide Die MHD, etc. (m5)
	Interference fit	Press fit	n5 n6	p6			Fitting which requires large force for assembly/disassembly (A key or other device is required for high-torque transmission purposes.) However, only light press-fitting force is required for press-fitting when both parts are non-ferrous parts. Fastened using the standard press-fitting for fastening a ferrous part to a ferrous, bronze, or copper part	Difficult to disassemble without damaging the part.		Insertion of suction valve and valve guide Straight die MSD, etc. (n5) Fixing a gear and shaft together (small torque) Dowel pin MST (p6) Flexible coupling shaft and gear (drive side)
			p5	r6			Assembly/disassembly are the same as the above. Shrinkage press fitting, cold press fitting or forced press fitting is required for large parts			Coupling and shaft
		Strong press fit, shrinkage press fit, cold press fit	r5	s6 t6 u6 x6			Permanent assembly in which parts are both tightly fastened together and will not be disassembled, and which requires shrinkage press fitting, cold press fitting, or forced press fitting. For light alloys, only ordinary press fitting is required.		Fitting force is capable of transmitting considerable force	Fitting and fixing a bearing bushing Insertion of suction valve and valve seat Fixing a coupling flange and shaft together (large torque) Fixing a drive gear rim and boss together Fitting and fixing a bearing bushing

The items printed in red in the Application example are press die parts presented in this catalog.