
















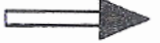


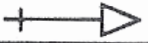
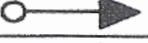
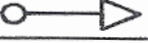

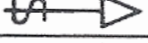
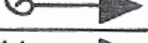
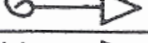


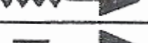
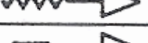

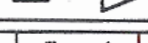



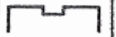













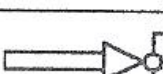
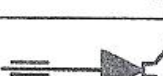


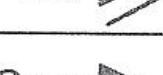

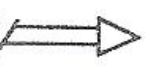



SIMBOLOGIA PARA CROQUIS RESPECTIVOS ÀS FIXAÇÕES DE PEÇAS EM MÁQUINAS

- 
Fixação rígida
- 
Ponto e contra-ponto
- 
Apoio em face
- 
Fixação por dentes de engrenagem
- 
Localização por eixo
- 
Centro de arraste
- 
Placa e pino de arraste

Technology type Type of surface		Type of contact on surface Function of technological element							
Function	Symbol			Projections					
Exact positioning Datum origin Definition of axis	 Triangle black	 surface	 support or any form	 complete	 free				
Clamping of part Prepositioning Opposition against vibrations and deformations	 Triangle white	 surface							
Nature of surface	Symbol								
Surface machined		one line							
Surface raw		two lines							
Technological type	Symbols								
Fixed support									
Fixed centering									
System with clamping									
System with concentric clamping									
Irreversible fixed support									
Reversible support									
Sliding positioning									
Nature of contact	flat	curved	serrated	free	pan	swing bar	vee	fixed center	turning center
Symbol									

Symbol	Signification	DOF cancel
	Flat fixed contact on machined surface	1
	Flat removable contact on a machined surface	1
	Serrated jaws with concentric clamping floating used as driver on raw surface	2
	Curved fixed contact used as datum for a raw surface	1
	Fixed free contact for datum on a raw surface	1
	Axial pan used as contact point for remachining a machined surface	2
	Axial fixed center used as support on a machined center	3
	Axial fixed pan used as datum on a raw surface	2
	Swing bar with serrated surfaces for positioning on a raw surface	1
	Axial sliding vee used as datum on a machined surface	1
	Axial center with spring used as datum on machined center	2
	Axial rotating center of tail stock used as short centering and locking	2
	Complete fixed center in a machined hole	2
	Free fixed center (locating) in a machined hole	1
	Irreversible support element, jack against vibrations	0
	Spacer against vibrations or support for parts with thin walls	0