

## *DESENHO TÉCNICO PARA QUÍMICOS (SEM 0574)*



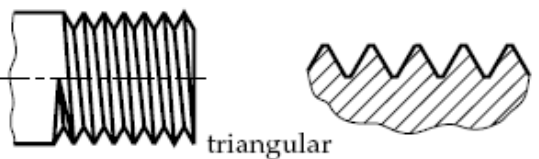

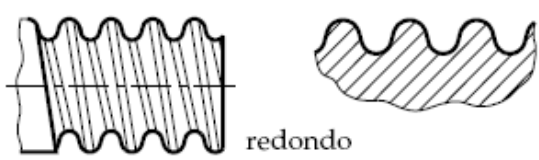


Notas de Aulas v.2020

### *Aula 07 – Representação de roscas*

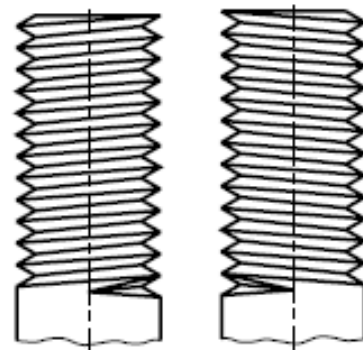
Prof. Alessandro Roger  
Prof. Jaime Duduch  
Profa. Luciana Montanari  
Prof. Renato Jasinevicius

## ELEMENTOS DE FIXAÇÃO

### PARAFUSOS

TIPOS DE ROSCAS (PERFIS) PERFIL DE FILETE	APLICAÇÃO
 <p>triangular</p>	<p>Parafusos e porcas de fixação na união de peças. Ex.: Fixação da roda do carro.</p>
 <p>trapezoidal</p>	<p>Parafusos que transmitem movimento suave e uniforme. Ex.: Fusos de máquinas.</p>
 <p>redondo</p>	<p>Parafusos de grandes diâmetros sujeitos a grandes esforços. Ex.: Equipamentos ferroviários.</p>
 <p>quadrado</p>	<p>Parafusos que sofrem grandes esforços e choques. Ex.: Prensas e morsas.</p>
 <p>rosca dente-de-serra</p>	<p>Parafusos que exercem grande esforço num só sentido Ex.: Macacos de catraca</p>

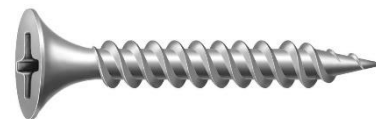
Sentido de direção da rosca



direita

esquerda

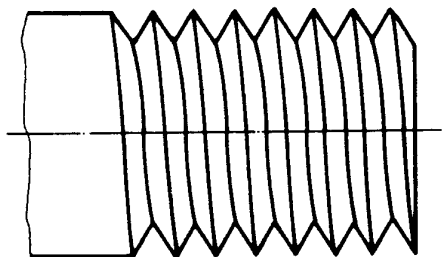
Parafuso com duas entradas



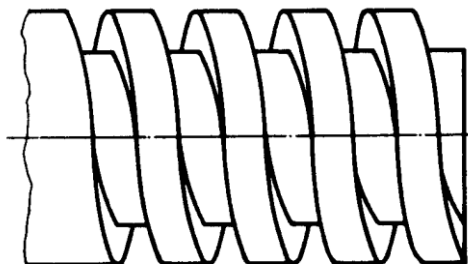
# ELEMENTOS DE FIXAÇÃO – tipos de representação

## PARAFUSOS

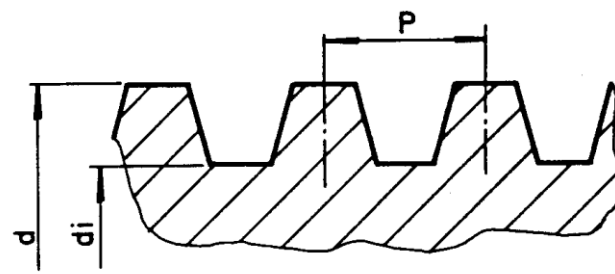
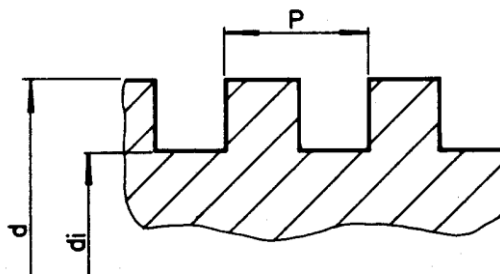
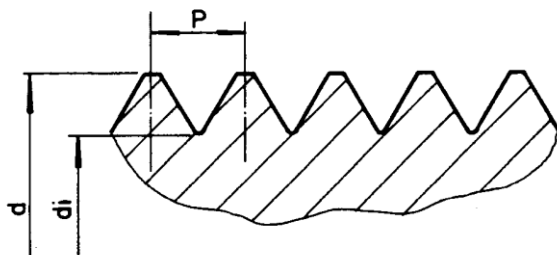
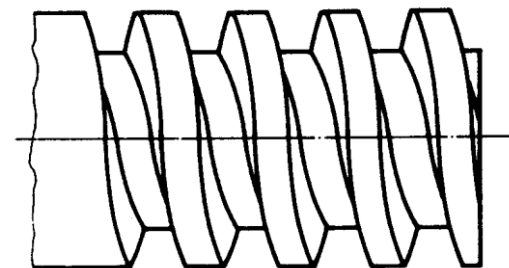
Rosca triangular



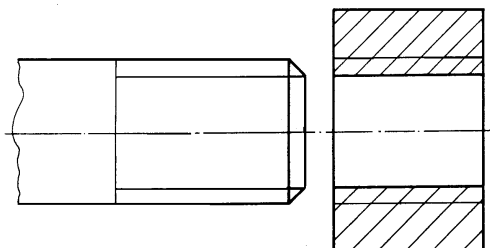
Rosca quadrada



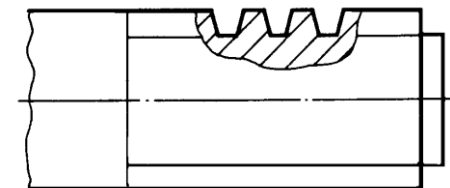
Rosca trapezoidal



Rosca com perfil triangular



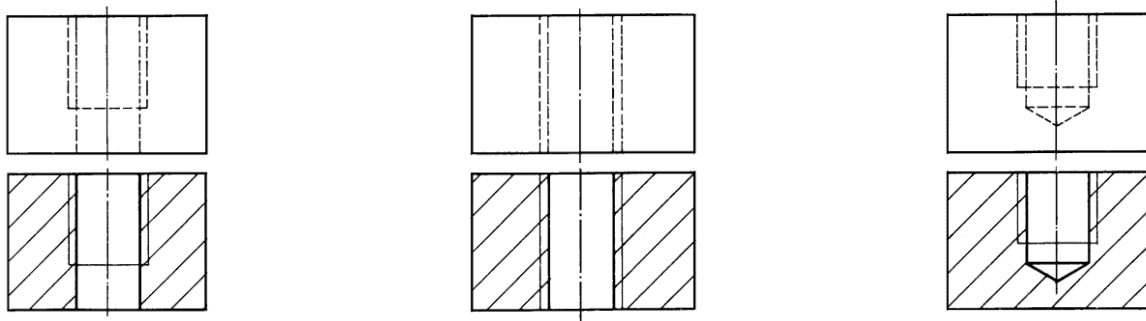
Rosca com perfil especial



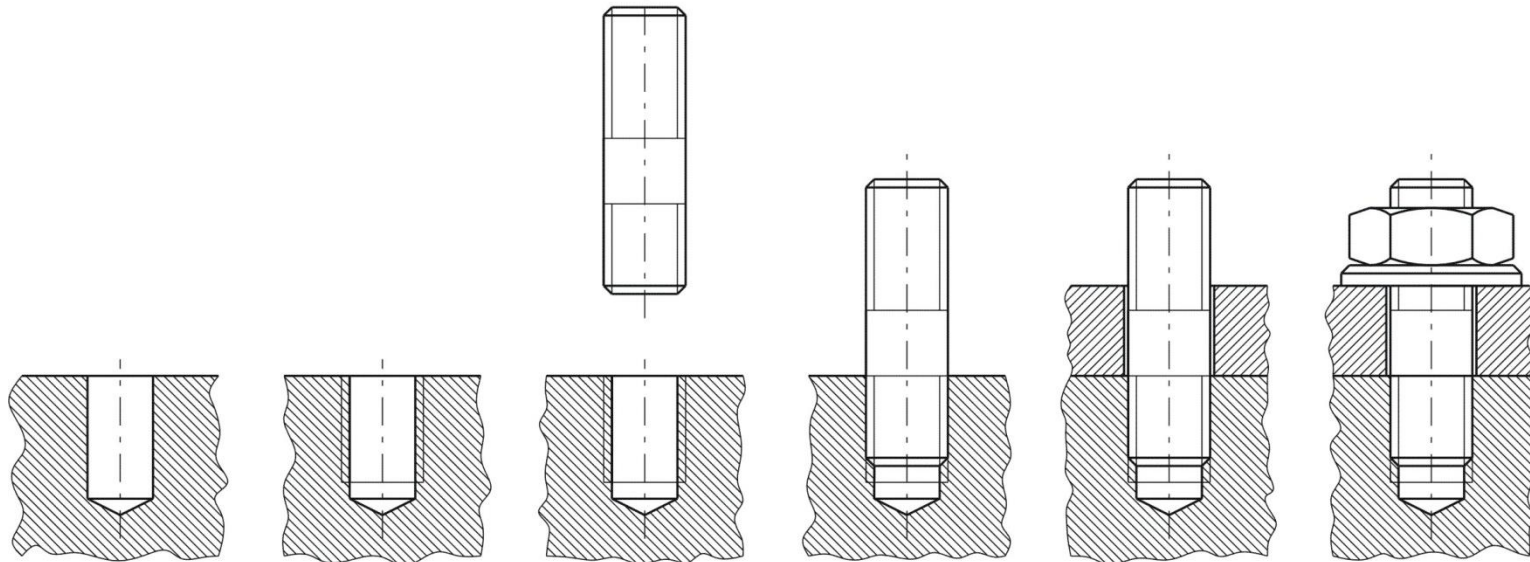
# ELEMENTOS DE FIXAÇÃO

## PARAFUSOS

- Representação convencional de furos roscados (em corte, a região da rosca é hachurada).



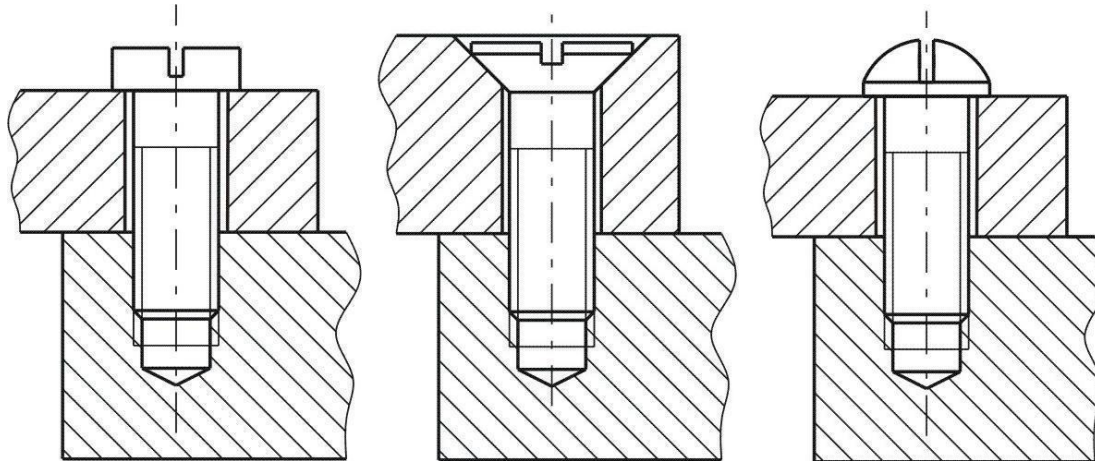
- Fabricação de furo roscado e união por prisioneiro, arruela e porca.



# ELEMENTOS DE FIXAÇÃO

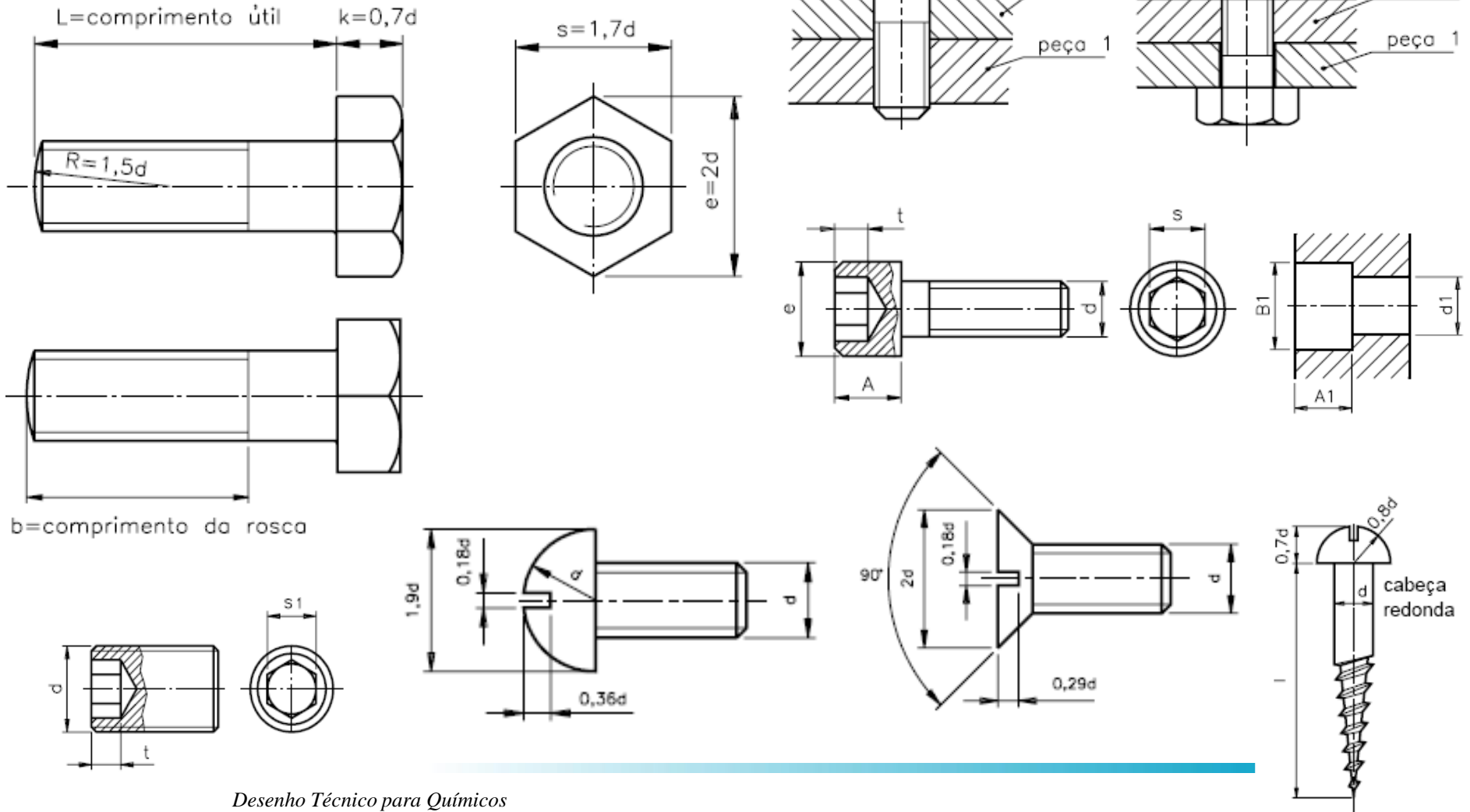
## PARAFUSOS

- União de duas chapas por parafusos:



# ELEMENTOS DE FIXAÇÃO

## PARAFUSOS



# ELEMENTOS DE FIXAÇÃO

## PARAFUSOS

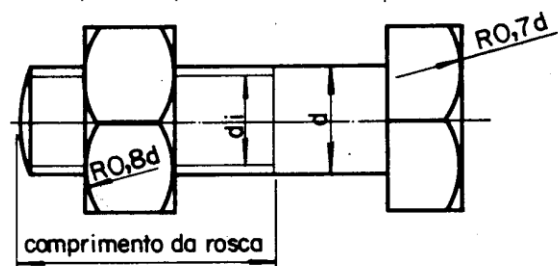
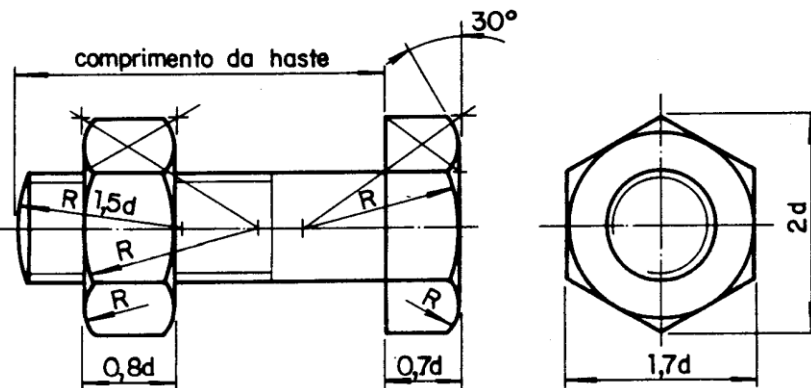
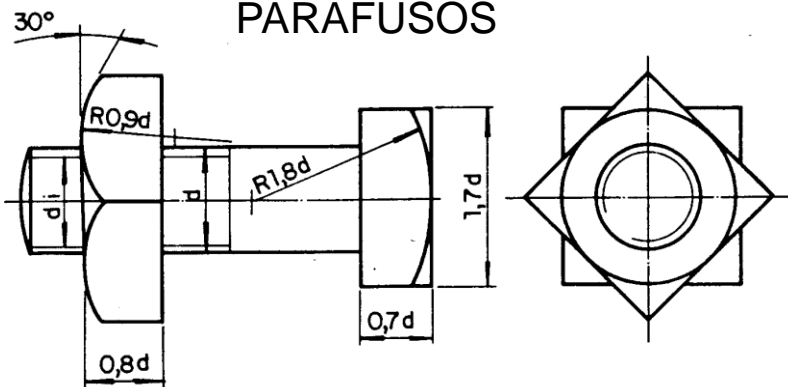
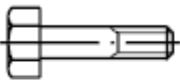


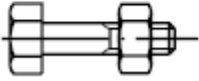
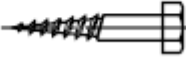

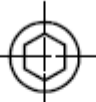




TABELA DE ROSCAS

ROSCA MÉTRICA (M) Perfil triangular - ISO NB 97			ROSCA WHITWORTH Normal				ROSCA WHITWORTH GÁS Para canos (RC) NB 202 - ABNT			
d Diam.	di Núcleo	P Passo	d Poleg.	d mm	di Núcleo	Nº de fios/1"	d Poleg.	d mm	di Núcleo	Nº de fios/1"
4	3,141	0,7	1/8"	3,17	2,36	40	1/8"	9,73	8,57	28
6	4,773	1	5/32"	3,96	2,95	32	1/4"	13,15	11,44	19
8	6,466	1,25	3/16"	4,76	3,40	24	3/8"	16,63	14,95	19
10	8,160	1,5	7/32"	5,55	4,20	20	1/2"	20,95	18,63	14
12	9,833	1,75	1/4"	6,35	4,72	20	5/8"	22,91	20,58	14
14	11,546	2	5/16"	7,93	6,13	18	3/4"	26,44	24,11	14
16	13,546	2	3/8"	9,52	7,49	16	7/8"	30,20	27,87	14
18	14,933	2,5	1/2"	12,70	9,99	12	1"	33,25	30,29	11
20	16,933	2,5	9/16"	14,28	11,57	12	1 1/4"	41,91	38,95	11
22	18,933	2,5	5/8"	15,87	12,91	11	1 1/2"	47,80	44,84	11
24	20,319	3	11/16"	17,46	14,50	11	1 3/4"	53,74	50,79	11
30	25,706	3,5	3/4"	19,05	16,79	10	2"	59,61	56,65	11
36	31,093	4	13/16"	20,63	17,38	10	2 1/4"	65,71	62,75	11
42	36,479	4,5	7/8"	22,22	18,61	9	2 1/2"	75,18	72,23	11
48	41,866	5	15/16"	23,81	20,19	9	2 3/4"	81,53	78,58	11
56	49,252	5,5	1"	25,40	21,33	8	3"	87,88	84,93	11
60	53,252	5,5	1 1/8"	28,57	23,92	7	3 1/4"	93,98	91,02	11
64	56,639	6	1 1/4"	31,75	27,10	7	3 1/2"	100,33	97,37	11

# ELEMENTOS DE FIXAÇÃO




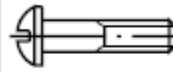



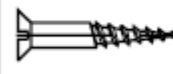

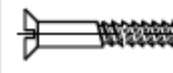
## PARAFUSOS

 <p>parafuso sextavado</p>		 <p>parafuso sextavado com rosca total</p>
 <p>parafuso sextavado com porca</p>		 <p>parafuso auto-atarraxante de cabeça sextavada</p>
 <p>parafuso de cabeça cilíndrica com sextavado interno</p>		
 <p>parafuso de cabeça quadrada</p>		








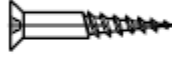
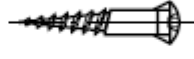




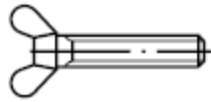

# ELEMENTOS DE FIXAÇÃO

## PARAFUSOS

	parafuso de cabeça cilíndrica com fenda			parafuso de cabeça redonda com fenda
	parafuso de cabeça cilíndrica abaulada com fenda			parafuso de cabeça escareada com fenda
	parafuso de cabeça escareada abaulada com fenda			parafuso sem cabeça com fenda
	parafuso para madeira de cabeça escareada com fenda			parafuso sem cabeça com rosca total e fenda
	parafuso tipo prego de cabeça escareada			

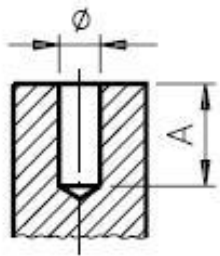
# ELEMENTOS DE FIXAÇÃO

## PARAFUSOS

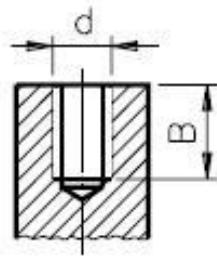
	parafuso de cabeça panela com fenda cruzada			parafuso de cabeça escareada com fenda cruzada
	parafuso de cabeça redonda com fenda cruzada			parafuso de cabeça escareada abaulada com fenda cruzada
	parafuso para madeira de cabeça escareada com fenda cruzada			parafuso para madeira de cabeça escareada abaulada com fenda cruzada
	prisioneiro			
	parafuso de cabeça recartilhada			
	parafuso borboleta			

# ELEMENTOS DE FIXAÇÃO

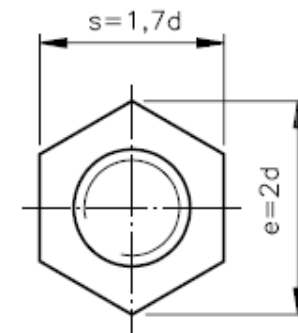
## PARAFUSOS



furo broqueado



furo roscado







## REFERÊNCIAS

Gordo, N.; Ferreira, J. **Elementos de Máquina**, Escola SENAI-SP.