

REDUTOR GSA

Esta classe de redutores foi projetada para o acionamento de todos os tipos de máquinas e aparelhos de baixa velocidade. A característica principal desta linha é uma transmissão por Eixo SEM-FIM e COROA, possibilitando reduções de 1x7,5 até 1x100.

A caixa, desenvolvida em alumínio injetado, tem uma forma construtiva adequada ao material utilizado, com uma avançada geometria de engrenamento que resulta em durabilidade e garantia de qualidade.

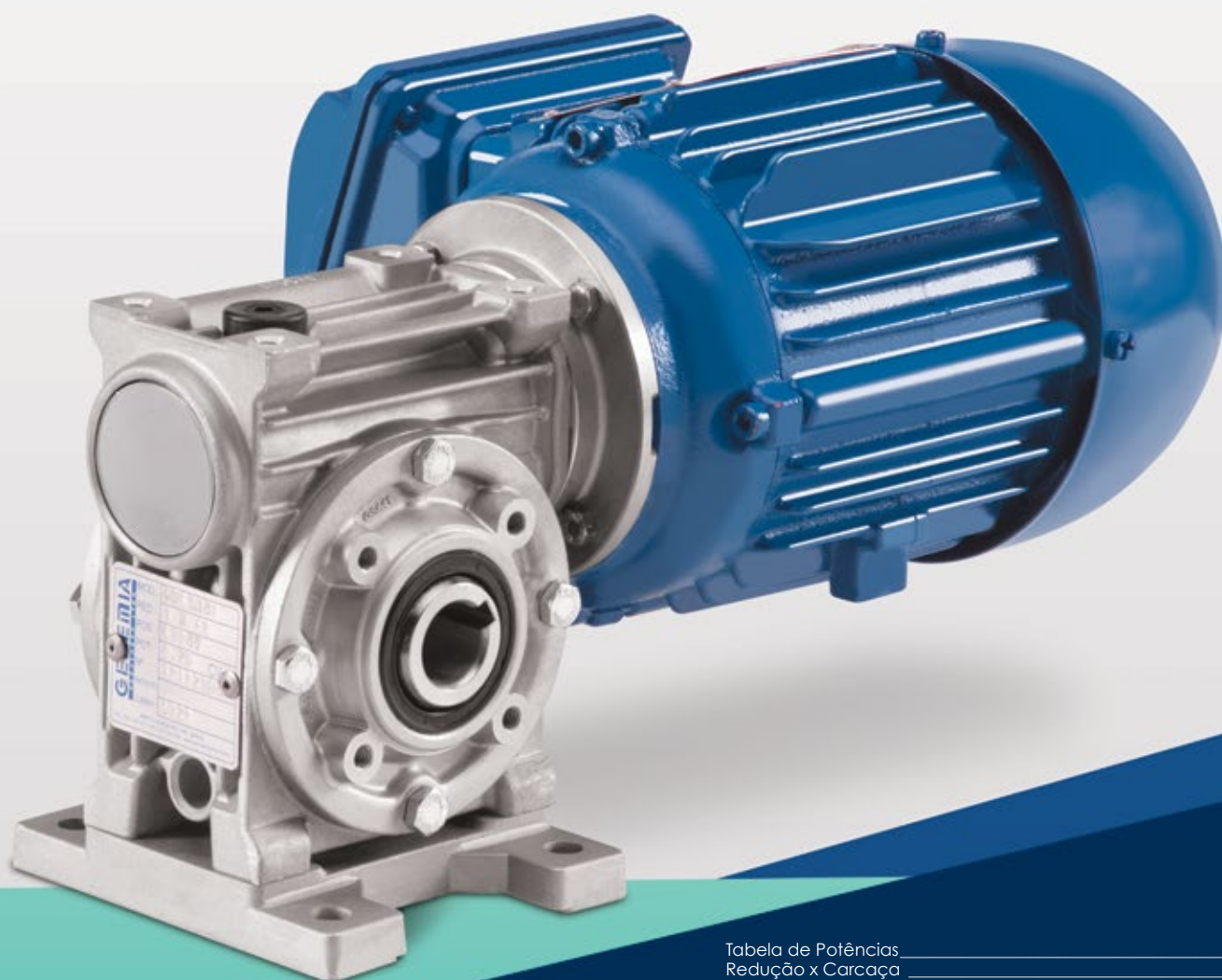


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TABELA GERAL - SIMPLES REDUÇÃO DE POTÊNCIA DE ENTRADA E TORQUE DE SAÍDA

MODELO	RED	1700 RPM - MOTOR 4P 60 Hz					1400 RPM - MOTOR 4P 50 Hz					1150 RPM - MOTOR 6P 60 Hz					η
		Pe (cv)	Pe (KW)	MT (Nm)	RPM	Fs	Pe (cv)	Pe (KW)	MT (Nm)	RPM	Fs	Pe (cv)	Pe (KW)	MT (Nm)	RPM	Fs	
GSA 28	7.5	0.33	0.25	9	226.7	2.3	0.25	0.18	8	186.7	2.6	0.16	0.12	6	153.3	3.6	87%
	10	0.33	0.25	11	170.0	1.7	0.25	0.18	11	140.0	1.9	0.16	0.12	8	115.0	2.6	84%
	15	0.33	0.25	16	113.3	1.3	0.25	0.18	15	93.3	1.5	0.16	0.12	12	76.7	2.0	80%
	20	0.25	0.18	15	85.0	1.1	0.25	0.18	18	70.0	1.0	0.16	0.12	14	57.5	1.3	73%
	25	0.33	0.25	24	68.0	1.0	0.25	0.18	22	56.0	1.1	0.16	0.12	17	46.0	1.5	71%
	30	0.25	0.18	21	56.7	1.1	0.16	0.12	17	46.7	1.5	0.16	0.12	20	38.3	1.2	69%
	40	0.16	0.12	16	42.5	1.1	0.16	0.12	19	35.0	1.0	0.12	0.08	17	28.8	1.1	60%
	50	0.16	0.12	18	34.0	1.0	0.16	0.12	20*	28.0	1.0	0.12	0.08	20	23.0	1.0	55%
	60	0.12	0.08	15	28.3	1.0	0.12	0.08	17*	23.3	1.0	0.12	0.08	21*	19.2	1.0	52%
GSA 41	7.5	0.75	0.55	20	226.7	2.3	0.50	0.37	16.4	186.7	2.9	0.33	0.25	13	153.3	4.0	87%
	10	0.75	0.55	26	170.0	1.6	0.50	0.37	21.2	140.0	2.1	0.33	0.25	17	115.0	2.9	84%
	12	0.75	0.55	31	141.7	1.4	0.50	0.37	25.2	116.7	1.9	0.33	0.25	20	95.8	2.6	84%
	15	0.75	0.55	37	113.3	1.1	0.50	0.37	30.1	93.3	1.4	0.33	0.25	24	76.7	1.9	80%
	20	0.75	0.55	48	85.0	1.0	0.50	0.37	38.8	70.0	1.3	0.33	0.25	31	57.5	1.7	77%
	25	0.50	0.37	37	68.0	1.3	0.50	0.37	45.4	56.0	1.2	0.33	0.25	36	46.0	1.5	72%
	30	0.50	0.37	43	56.7	1.2	0.50	0.37	52.5	46.7	1.0	0.33	0.25	42	38.3	1.3	70%
	40	0.50	0.37	53	42.5	1.0	0.33	0.25	42.9	35.0	1.2	0.33	0.25	52	28.8	1.1	65%
	50	0.33	0.25	40	34.0	1.1	0.33	0.25	49.0	28.0	1.0	0.25	0.18	45	23.0	1.1	59%
	60	0.33	0.25	45	28.3	1.0	0.25	0.18	41.1	23.3	1.1	0.25	0.18	50	19.2	1.0	55%
	80	0.25	0.18	42	21.3	1.0	0.16	0.12	33.0	17.5	1.3	0.16	0.12	40	14.4	1.0	51%
GSA 51	7.5	1.50	1.10	42	226.7	2.1	1.00	0.75	34	186.7	2.7	0.75	0.55	31	153.3	3.3	90%
	10	1.50	1.10	54	170.0	1.5	1.00	0.75	44	140.0	2.0	0.75	0.55	40	115.0	2.4	87%
	12	1.50	1.10	64	141.7	1.4	1.00	0.75	52	116.7	1.9	0.75	0.55	48	95.8	2.2	87%
	15	1.50	1.10	78	113.3	1.1	1.00	0.75	63	93.3	1.5	0.75	0.55	57	76.7	1.8	84%
	20	1.00	0.75	67	85.0	1.2	1.00	0.75	81	70.0	1.0	0.75	0.55	74	57.5	1.1	81%
	25	1.00	0.75	80	68.0	1.2	1.00	0.75	97	56.0	1.1	0.75	0.55	88	46.0	1.3	77%
	30	1.00	0.75	91	56.7	1.0	0.75	0.55	83	46.7	1.2	0.75	0.55	101	38.3	1.1	74%
	40	0.75	0.55	86	42.5	1.0	0.50	0.37	70	35.0	1.3	0.50	0.37	85	28.8	1.1	69%
	50	0.50	0.37	67	34.0	1.3	0.50	0.37	81	28.0	1.1	0.50	0.37	99	23.0	1.0	65%
	60	0.50	0.37	76	28.3	1.0	0.33	0.25	61	23.3	1.3	0.33	0.25	74	19.2	1.2	61%
	80	0.33	0.25	62	21.3	1.1	0.25	0.18	57	17.5	1.2	0.25	0.18	70	14.4	1.2	57%
100	0.25	0.18	53	17.0	1.2	0.25	0.18	64	14.0	1.1	0.25	0.18	78	11.5	1.0	51%	
GSA 63	7.5	3.00	2.20	84	226.7	1.7	2.00	1.50	68	186.7	2.2	1.50	1.10	62	153.3	2.6	91%
	10	3.00	2.20	109	170.0	1.2	2.00	1.50	88	140.0	1.6	1.50	1.10	81	115.0	1.8	88%
	15	3.00	2.20	158	113.3	1.0	2.00	1.50	128	93.3	1.2	1.50	1.10	117	76.7	1.4	85%
	20	2.00	1.50	136	85.0	1.1	1.50	1.10	124	70.0	1.3	1.50	1.10	151	57.5	1.0	83%
	25	2.00	1.50	163	68.0	1.0	1.50	1.10	148	56.0	1.2	1.50	1.10	180	46.0	1.0	79%
	30	1.50	1.10	141	56.7	1.1	1.50	1.10	171	46.7	1.0	1.00	0.75	139	38.3	1.4	76%
	40	1.00	0.75	121	42.5	1.3	1.00	0.75	147	35.0	1.2	1.00	0.75	178	28.8	1.0	73%
	50	1.00	0.75	137	34.0	1.1	1.00	0.75	167	28.0	1.0	0.75	0.55	152	23.0	1.1	67%
	60	0.75	0.55	118	28.3	1.2	0.75	0.55	144	23.3	1.0	0.50	0.37	117	19.2	1.3	64%
	80	0.50	0.37	98	21.3	1.1	0.50	0.37	118	17.5	1.0	0.33	0.25	95	14.4	1.2	59%
100	0.50	0.37	95*	17.0	1.0	0.33	0.25	90	14.0	1.1	0.33	0.25	110	11.5	1.0	55%	

* Torque máximo limitado pelo redutor.

REDUÇÃO X CARÇAÇA

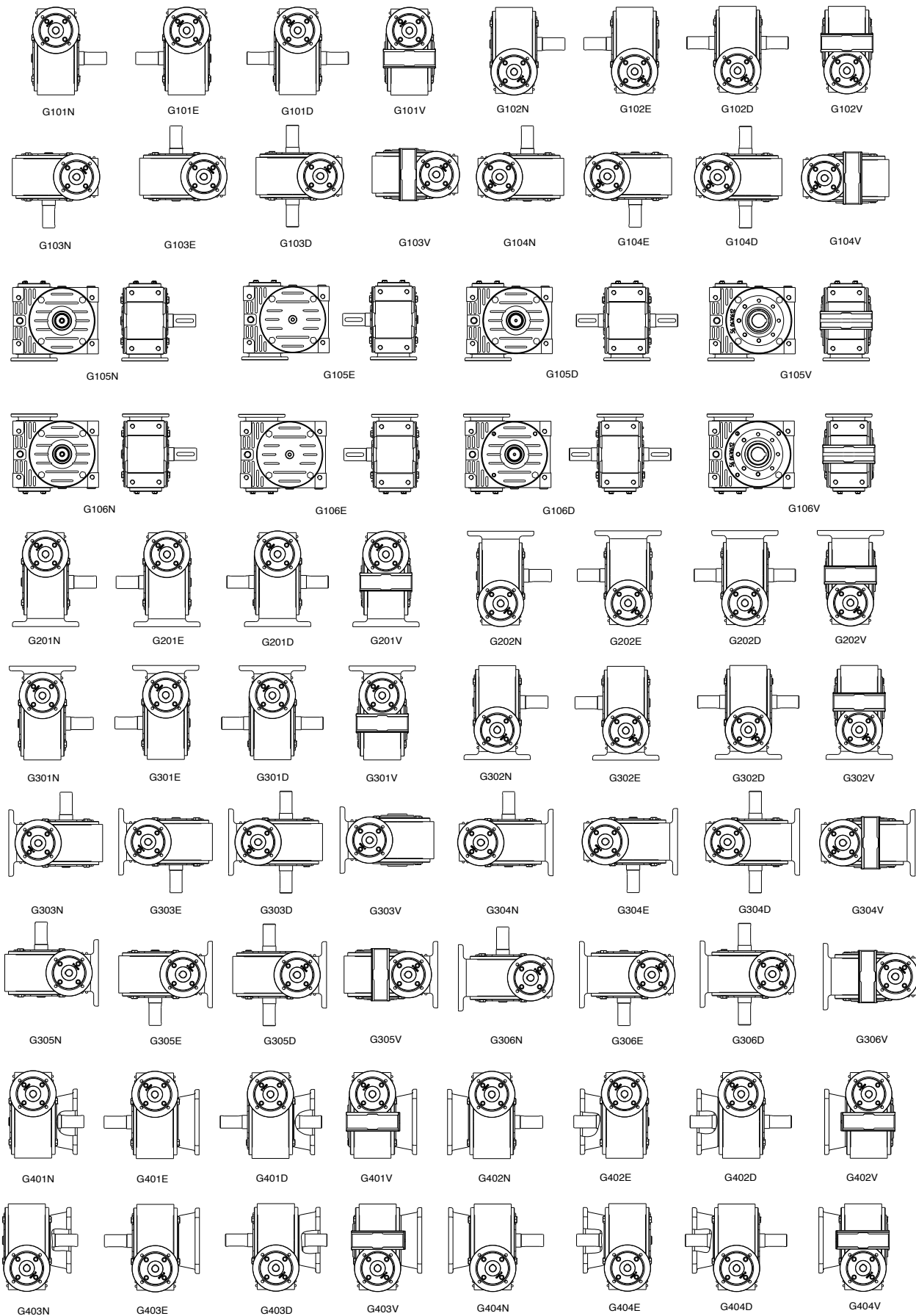
MODELO	RED	CARÇAÇAS IEC				
		C56	C63	C71	C80	C90
GSA28	7.5	OK	OK			
	10	OK	OK			
	15	OK	OK			
	20	OK	OK			
	25	OK	OK			
	30	OK	OK			
	40	OK	1			
	50	OK	1			
GSA41	7.5		OK	OK		
	10		OK	OK		
	12		OK	OK		
	15		OK	OK		
	20		OK	OK		
	25		OK	OK		
	30		OK	OK		
	40		OK	OK		
	50		OK	1		
	60		OK	1		
	80		OK	1		
GSA51	7.5		OK	OK	OK	
	10		OK	OK	OK	
	12		OK	OK	OK	
	15		OK	OK	OK	
	20		OK	OK	1	
	25		OK	OK	1	
	30		OK	OK	1	
	40		OK	OK	1	
	50		OK	OK	1	
	60		OK	OK	1	
	80		OK	1	1	
	100		OK	1	1	
GSA63	7.5			OK	OK	OK
	10			OK	OK	OK
	15			OK	OK	OK
	20			OK	OK	OK
	25			OK	OK	OK
	30			OK	OK	1
	40			OK	OK	1
	50			OK	OK	1
	60			OK	1	1
	80			OK	1	1
	100			OK	1	1

OK - É possível utilizar esta carcaça. Para obter a potência específica e torque máximo de cada redução, consultar a tabela de potência.

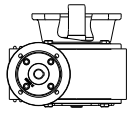
1 - É possível utilizar esta carcaça, porém implicará em fator de serviço menor que 1, ou seja, redutor subdimensionado.

- Não é possível esta carcaça para seguinte redução.

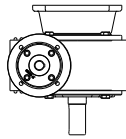
FORMAS CONSTRUTIVAS



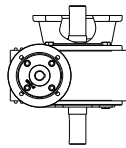
FORMAS CONSTRUTIVAS



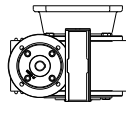
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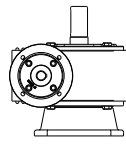
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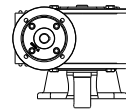
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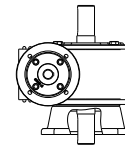
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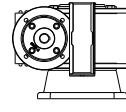
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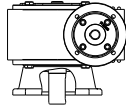
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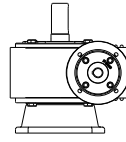
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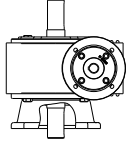
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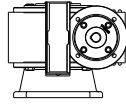
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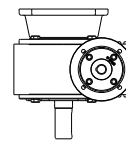
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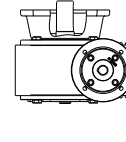
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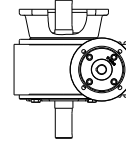
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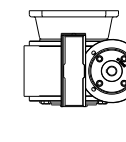
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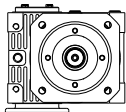
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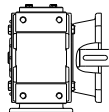
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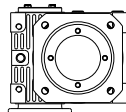
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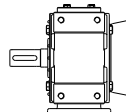
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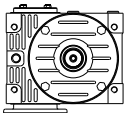
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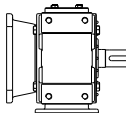
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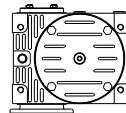
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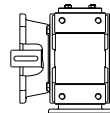
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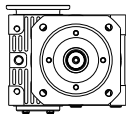
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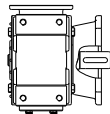
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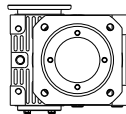
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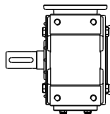
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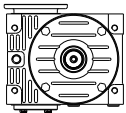
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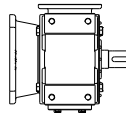
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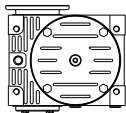
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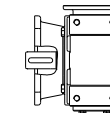
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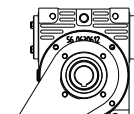
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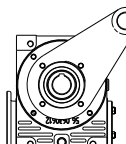
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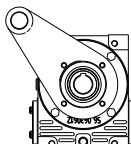
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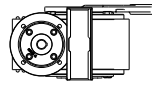
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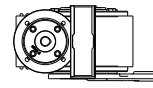
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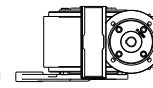
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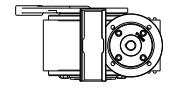
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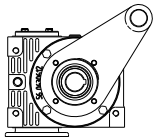
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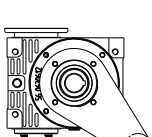
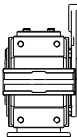
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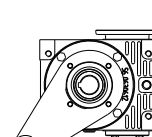
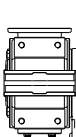
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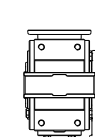
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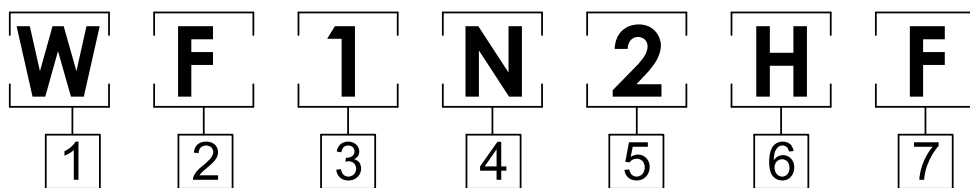


G412B



G413B

FORMA CONSTRUTIVA



1 REDUTOR

W= REDUTOR SÉRIE GSA

2 ENTRADA DO REDUTOR

M= MACIÇO

F= FLANGE

3 EIXO DE ENTRADA DO REDUTOR

1= HORIZONTAL

2= VERTICAL

3= HORIZONTAL COM PINHÃO DUPLO

4= VERTICAL COM PINHAO DUPLO

4 EIXO DE SAÍDA

N= EIXO MACIÇO

V= VAZADO

5 POSICIONAMENTO EIXO DE SAÍDA

0= VAZADO

1= ESQUERDA

2= DIREITA

3= PARA CIMA

4= PARA BAIXO

5= DUPLO

6= PARA FRENTE

7= PARA TRÁS

6 POSIÇÃO DO EIXO DE ENTRADA EM RELAÇÃO AO EIXO DE SAÍDA

H= EIXO DE ENTRADA HORIZONTAL SUPERIOR

I= EIXO DE ENTRADA HORIZONTAL INFERIOR

V= EIXO DE ENTRADA VERTICAL SUPERIOR À ESQUERDA

T= EIXO DE ENTRADA VERTICAL SUPERIOR À DIREITA

P= EIXO DE ENTRADA VERTICAL INFERIOR À DIREITA

Q= EIXO DE ENTRADA VERTICAL INFERIOR À ESQUERDA

E= EIXO DE ENTRADA HORIZONTAL À ESQUERDA

D= EIXO DE ENTRADA HORIZONTAL À DIREITA

7 ACESSÓRIOS

0= NENHUM

2= FLANGE DE SAÍDA À DIREITA OU PARA BAIXO

3= FLANGE DE SAÍDA À ESQUERDA OU PARA CIMA

4= BRAÇO DE TORÇÃO À DIREITA OU PARA BAIXO

5= BRAÇO DE TORÇÃO À ESQUERDA OU PARA CIMA

6= VAZADO COM DISCO DE CONTRAÇÃO À DIREITA OU PARA BAIXO

7= VAZADO COM DISCO DE CONTRAÇÃO À ESQUERDA OU PARA CIMA

8= VAZADO COM DISCO DE CONTRAÇÃO À DIREITA E FLANGE DE SAÍDA À ESQUERDA

9= VAZADO COM DISCO DE CONTRAÇÃO À ESQUERDA E FLANGE DE SAÍDA À DIREITA

A= VAZADO COM DISCO DE CONTRAÇÃO À DIREITA E BRAÇO DE TORÇÃO À ESQUERDA

B= VAZADO COM DISCO DE CONTRAÇÃO À ESQUERDA E BRAÇO DE TORÇÃO À DIREITA

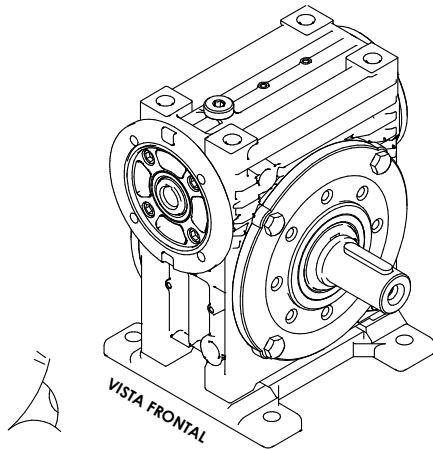
C= G-FIXINOX COM DISCO DE CONTRAÇÃO À DIREITA

D= G-FIXINOX COM DISCO DE CONTRAÇÃO À ESQUERDA

E= BASE NO LADO DA ENTRADA

F= BASE NO LADO DA SAÍDA

POSIÇÕES DE MONTAGEM

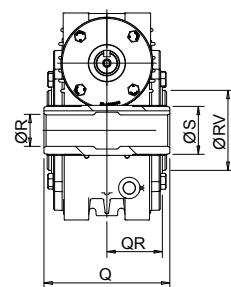
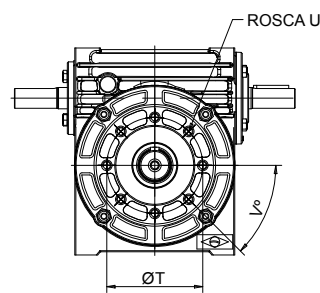
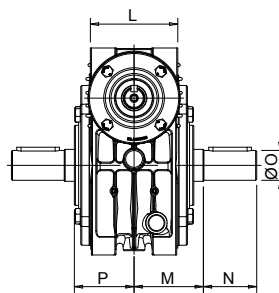
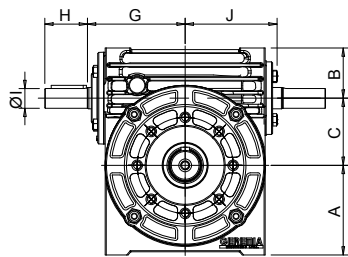
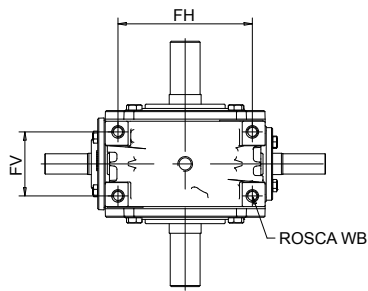
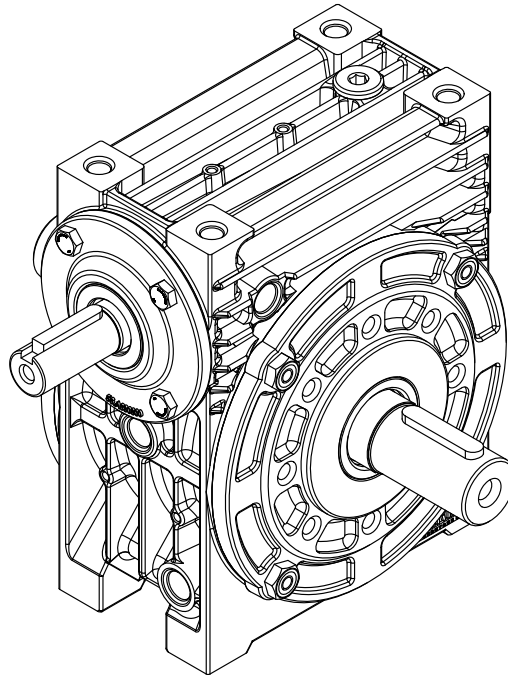


W F 1 N 2 H F

VISTA FRONTAL	VISTA FRONTAL	VISTA FRONTAL
<p>WM1N2H0</p>	<p>WF1N110</p>	<p>WF2N6Q0</p>
<p>WF1N3EF</p>	<p>WF1N4D2</p>	<p>WF2V0T4</p>
<p>WF2V0P7</p>	<p>WF2N7VE</p>	<p>WF1V0HA</p>

Todas as caixas de ligação estão representadas a zero grau tendo como referência a flange de entrada vista de frente.
 Posição de montagem baseada nas vistas 3D (isométrica).

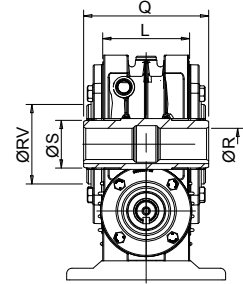
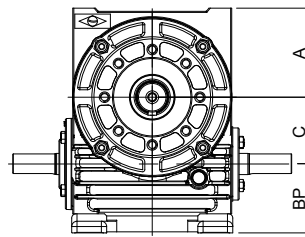
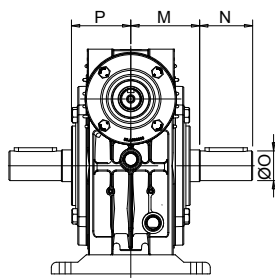
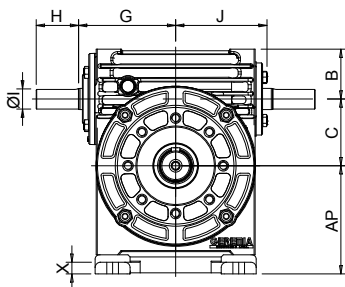
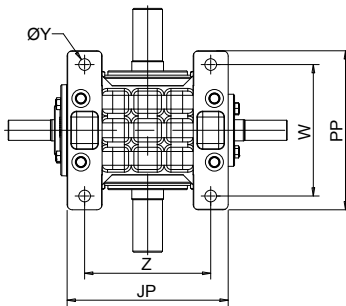
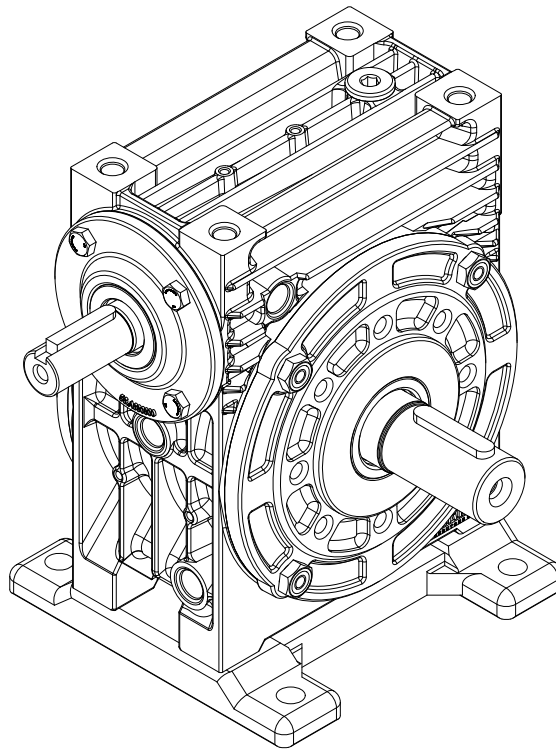
REDUTOR NORMAL



MODELO	A	B	C	FH	FV	G	H	ØI ^{J6}	J	L	M	N	ØO ^{J6}	P	Q	QR	ØR ^{H7}	ØRV	ØS	ØT	U	V	WB
GSA 28	36,5	24	28	53	28	42	23	11	42	39	32	25	14	30	62	28	14	50	25	65	4 x M5	45°	M6
GSA 41	50	31	41	76,5	43,5	58	30	16	57	60	47	35	19	40,5	85	37,5	19	50	30	65	4 x M6	45°	M6
GSA 51	63	34	51	97	46	68	35	19	68	72	51	40	24	44	92	40	25	70	40	85	4 x M8	45°	M8
GSA 63	84	47	63	126	60	91,6	40	19	88	82	65	50	28	56	118	52	30	75	45	90	8 x M8	45°	M10

1 - Para outras opções de medida Ø R , entrar em contato com a Geremia Redutores.

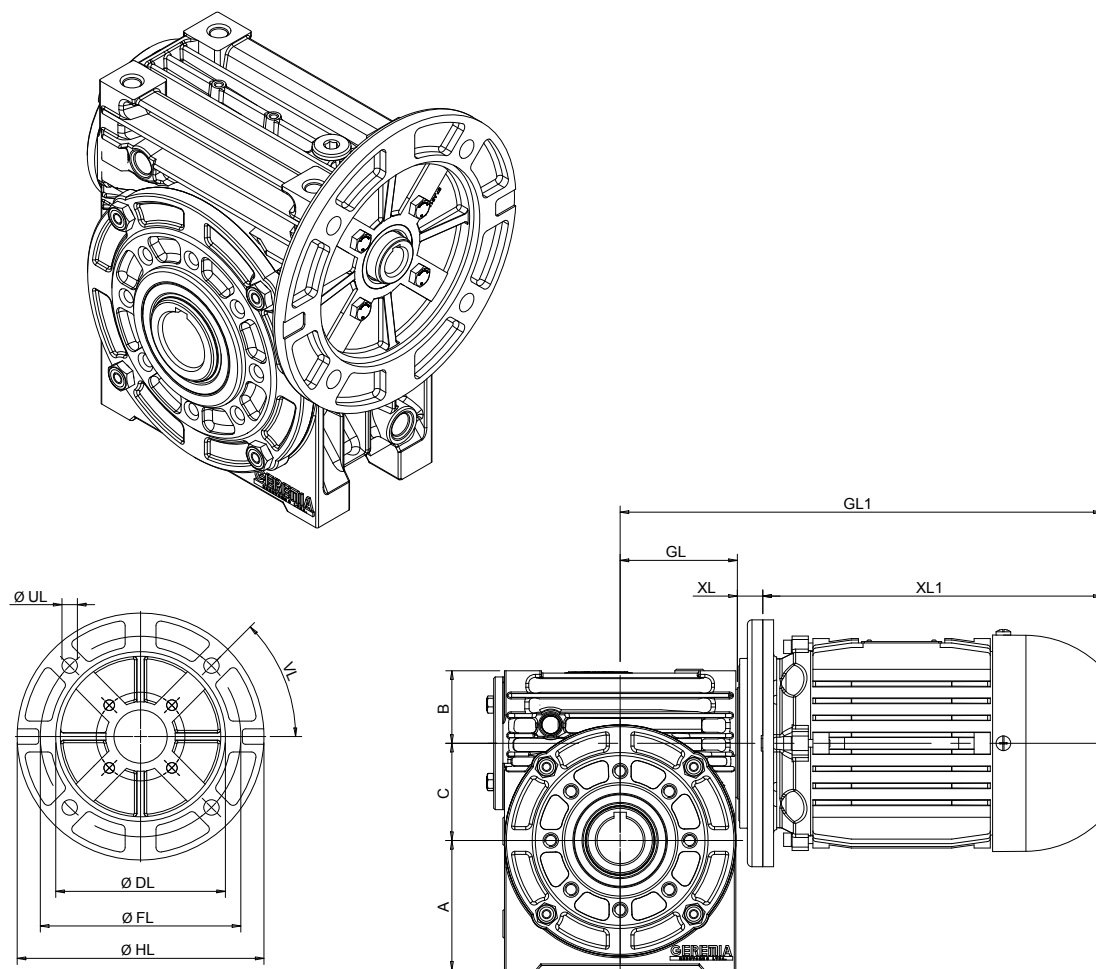
REDUTOR COM PÉS HORIZONTAIS



MODELO	A	AP	B	BP	C	G	H	ØIj6	J	JP	L	M	N	ØOj6	P	PP	Q	ØRH7	ØRV	Øs	W	X	Øy	Z
GSA 28	36.5	46.5	24	34	28	42	23	11	40.7	67	40	32	25	14	30	81	62	14	50	25	62	9	6.5	53
GSA 41	50	66	31	47	41	58	30	16	53.7	94	60	47	35	19	40.5	110	85	19	50	30	86	12	9	72
GSA 51	63	79	34	50	51	68	35	19	68	116	65	51	40	24	44	120	92	25	70	40	100	12	9	91
GSA 63	84	102	47	65	63	91.6	40	19	88	152	82	65	50	28	56	150	118	30	75	45	124	11	11	119

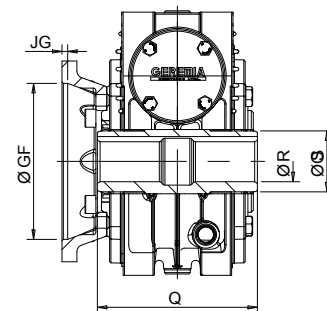
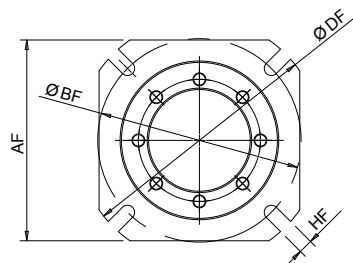
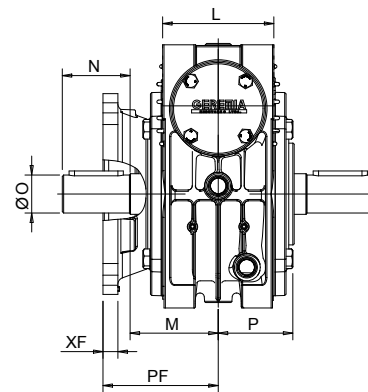
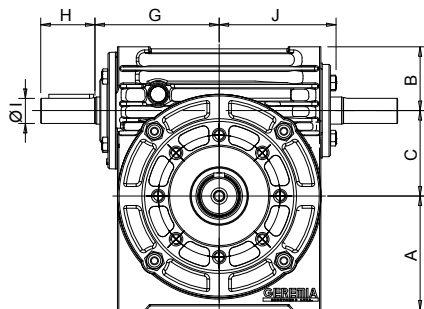
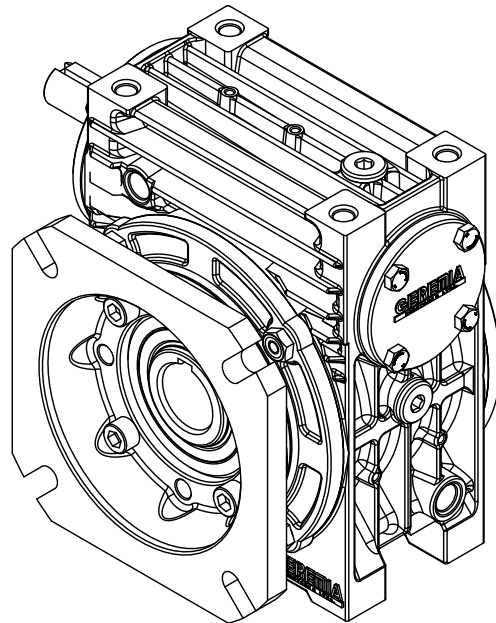
1 - Para outras opções de medida Ø R , entrar em contato com a Geremia Redutores.

REDUTOR COM FLANGE DE ENTRADA



MODELO	A	B	C	IEC	ØDL	ØFL	GL	GL1	ØHL	ØUL	VL	XL	XL1
GSA 28	36,5	24	28	C56B14	50	65	34,5	206	80	5,5	45°	14	158
				C63B14	60	75		230,5	90			13	192,5
GSA 41	50	31	41	C63B14	60	75	47	253,5	90	5,5	45°	14	192,5
				C71B14	70	85		282	105			6,5	15
				C63B5	95	115		253,5	140	10		14	192,5
				C71B5	110	130						282	160
GSA 51	63	34	51	C63B14	60	75	58	264,5	90	5,5	0°	14	192,5
				C71B14	70	85		293	105			6,5	15
				C80B14	80	100		312	120	6,5		18	236
				C63B5	95	115						264,5	140
				C71B5	110	130		293	160	16,5			
				C80B5	130	165		312	200	10,5		18	236
GSA 63	84	47	63	C71B14	70	85	76	311	105	6,5	45°	15	220
				C80B14	80	100		330	120			18	236
				C90B14	95	115		373,5	140	8,5		16,5	220
				C71B5	110	130							
				C80B5	130	165		330	200	10,5		18	279,5
				C90B5									

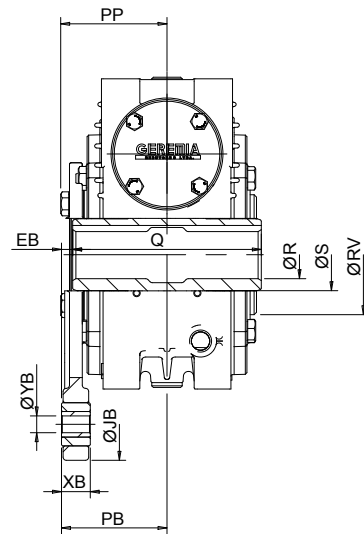
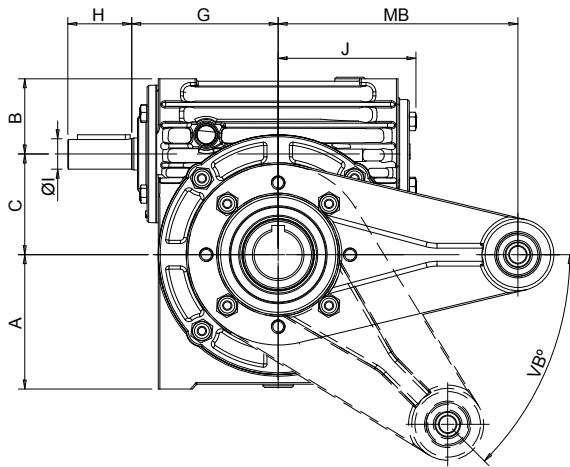
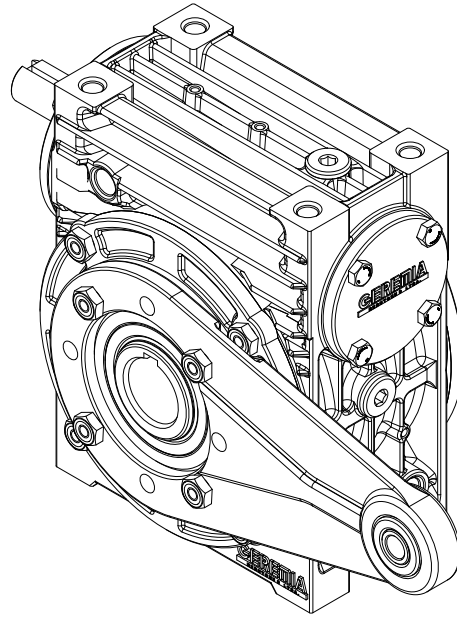
REDUTOR COM FLANGE DE SAÍDA.....



MODELO	A	AF	B	ØBF	C	ØDF	G	ØGF	H	HF	Ø ¹⁶	J	JG	L	M	N	ØO ¹⁶	P	PF	Q	ØR ¹⁷	ØS	XF
GSA 28	36,5	70	24	68	28	83	42	50	23	6,5	11	40,7	5	44	32	25	14	30	55	62	14	25	6
GSA 41	50	90	31	87	41	106	58	60	30	8,5	16	53,7	5,5	60	47	35	19	40,5	70,5	85	19	30	7
GSA 51	63	100	34	90	51	120	68	70	35	11	19	68	4,5	72	51	40	24	44	92,3	92	25	40	8
GSA 63	84	148	47	150	63	180	91,6	115	40	10,5	19	88	4	82	65	50	28	56	85	118	30	45	11

1 - Para outras opções de medida Ø R , entrar em contato com a Geremia Redutores.

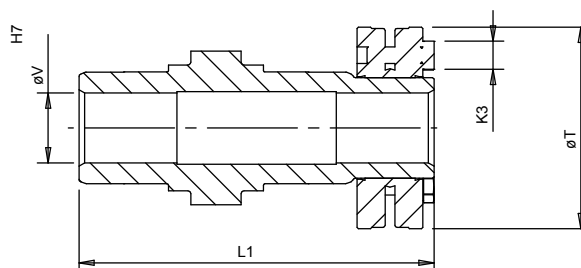
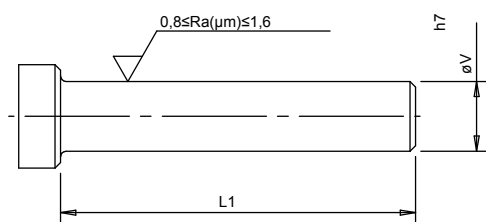
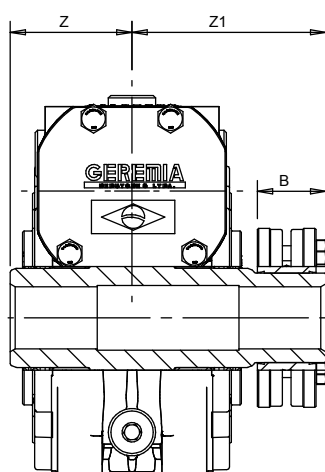
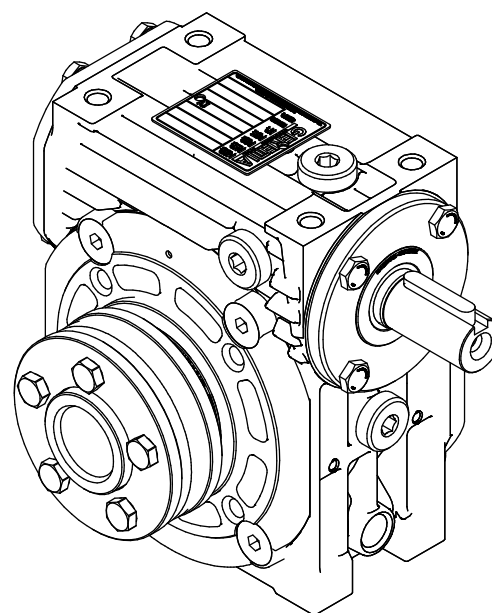
REDUTOR COM BRAÇO DE TORÇÃO



MODELO	A	B	C	EB	G	H	ØI ⁶	J	ØJB	MB	PB	PP	Q	ØR ^{H7}	ØS	VB	XB	ØYB	RV
GSA 28	36,5	24	28	11	42	23	11	40,7	45	100	42	40,7	62	14	25	45°	18	10,5	50
GSA 41	50	31	41	9	58	30	16	53,7	45	100	51,5	50,7	85	19	30	45°	18	10,5	50
GSA 51	63	34	51	7	68	35	19	68	45	100	53	57	92	25	40	45°	18	10,5	70
GSA 63	84	47	63	7	91,6	40	19	88	45	150	66	66,5	118	30	45	45°	18	10,5	75

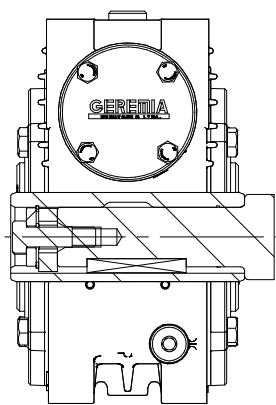
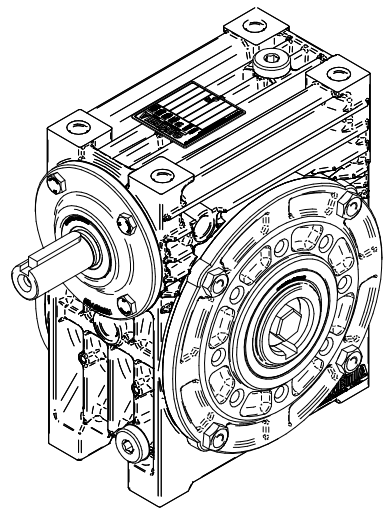
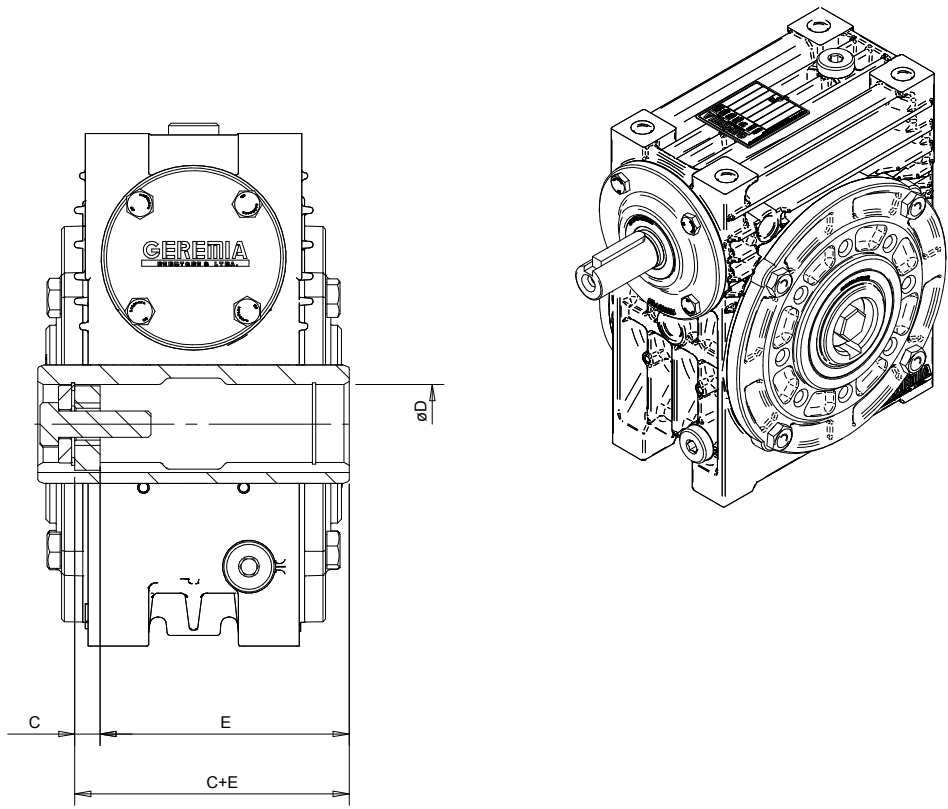
1 - Para outras opções de medida Ø R , entrar em contato com a Geremia Redutores.

REDUTOR COM DISCO DE CONTRAÇÃO

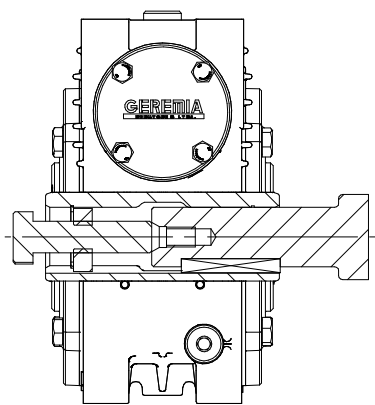


MODELO	B	K3	L1	øT	øV	Z	Z1	Mp(Nm)
GS5A1	27.5	M6	127	72	25	49	78	12
GSA63	27.5	M6	149	72	30	59	90	12

KIT FIXAÇÃO/EXTRAÇÃO



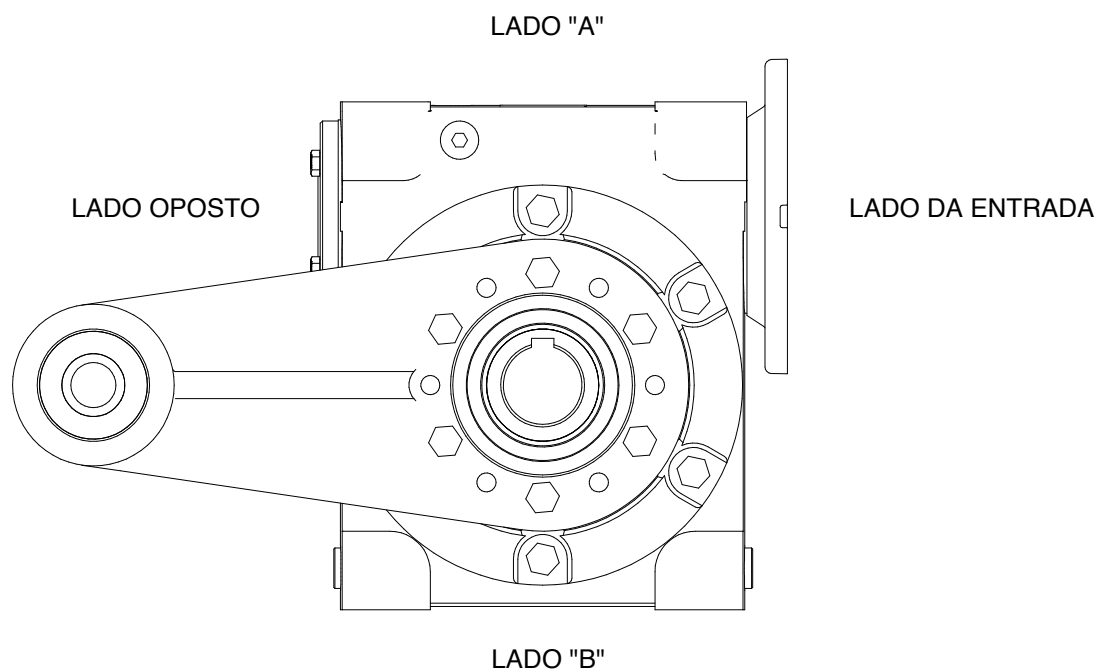
FIXAÇÃO



EXTRAÇÃO

REDUTOR	øD	C	E	C+E	KIT
GSA51	25	67.4	6.4	73.8	KF25
GSA63	30	94.5	9.5	104	KF30

POSIÇÃO DO BRAÇO DE TORÇÃO



Os ângulos do braço de torção, independente da forma construtiva tem como padrão a seguinte regra:

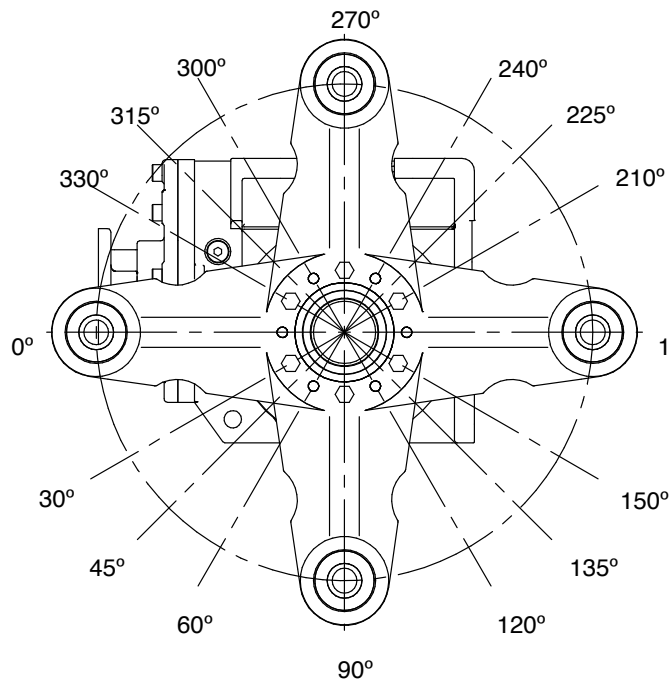
0° - LADO DA ENTRADA

90° - LADO "A"

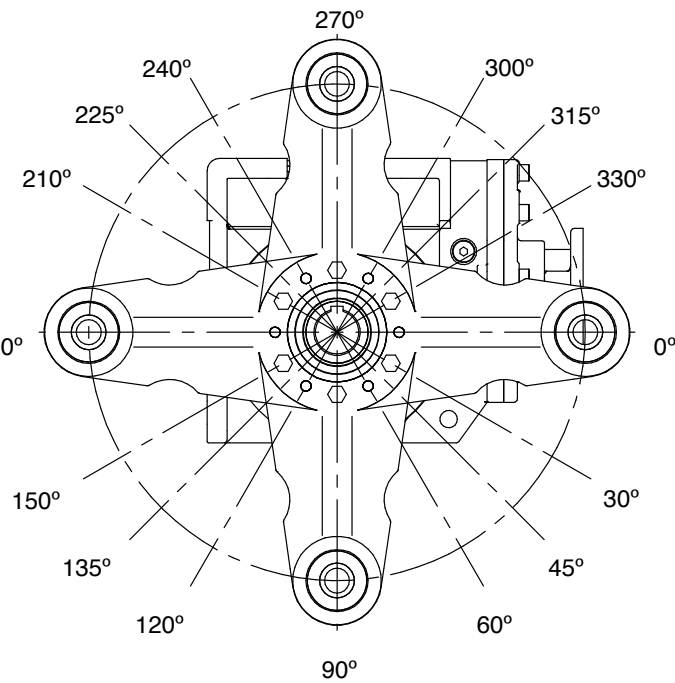
180° - LADO OPOSTO

270° - LADO "B"

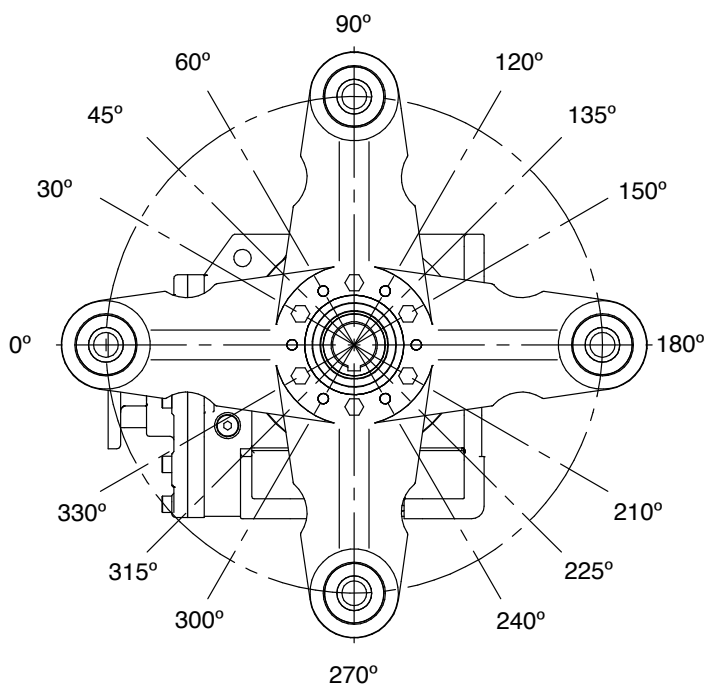
EXEMPLOS NAS FORMAS CONSTRUTIVAS



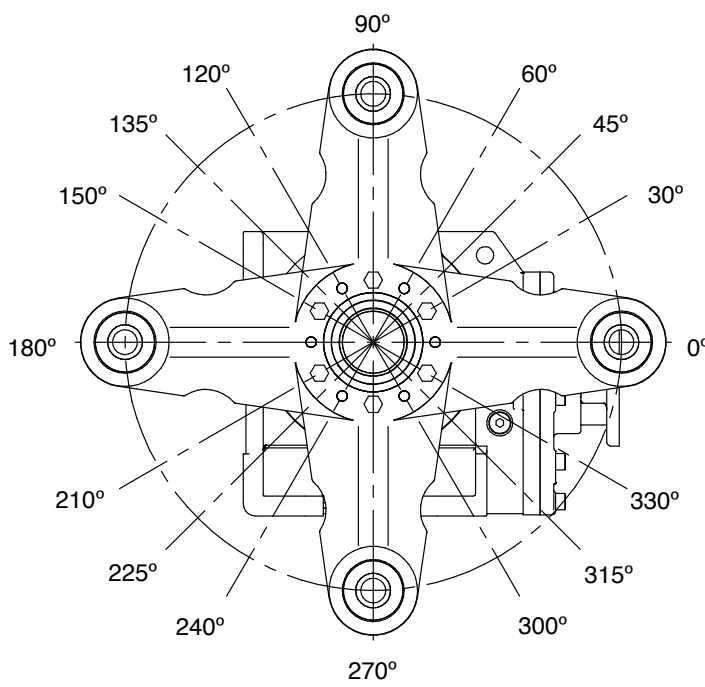
G401B



G402B

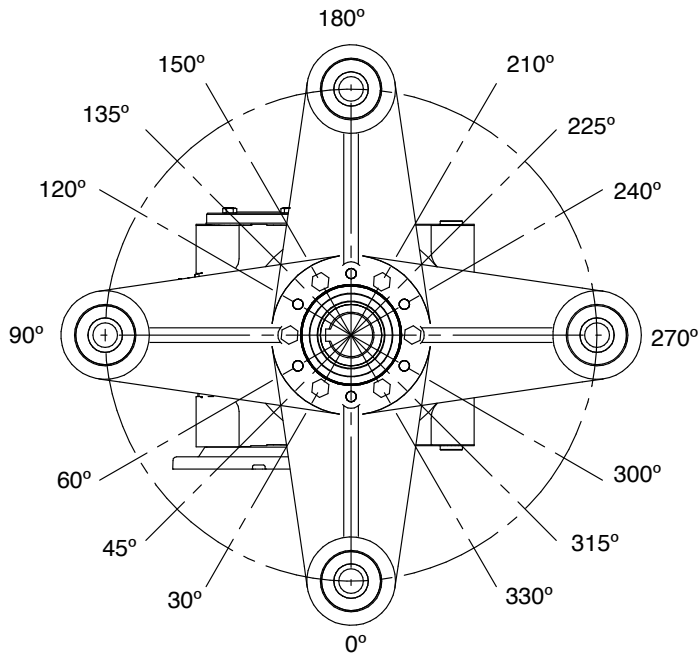


G403B

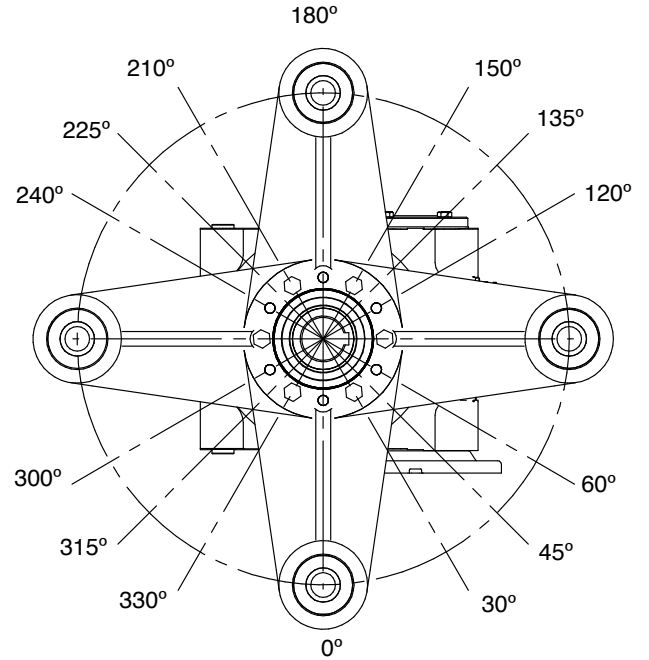


G404B

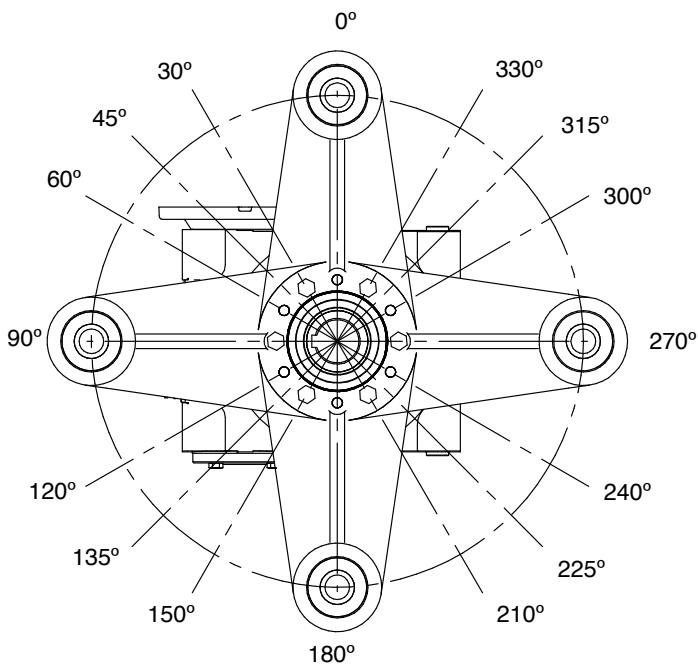
EXEMPLOS NAS FORMAS CONSTRUTIVAS



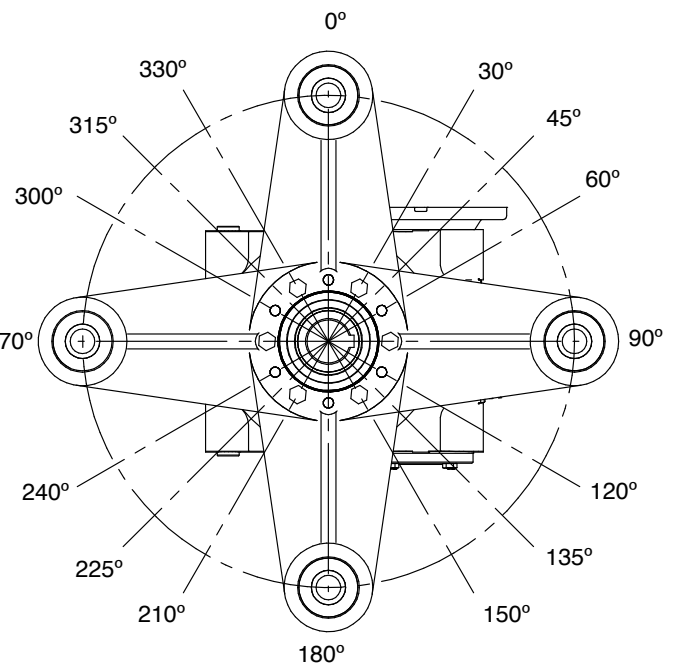
G409B



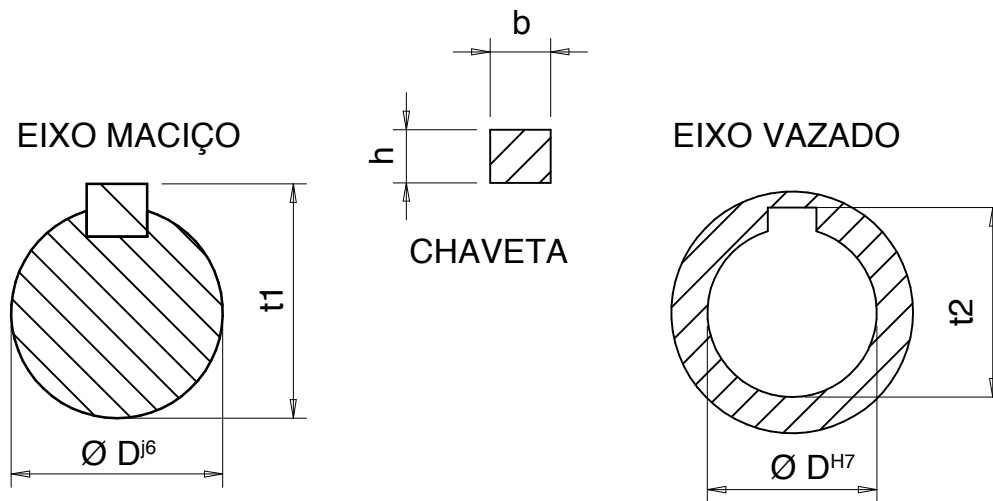
G410B



G411B



G412B



EIXO MACIÇO DE ENTRADA					
MOD.	ØD ^{I6}	CHAVETA		RASGO	
		b	h	t1	t2
GSA28	11	4	4	12.5	12.8
GSA41	16	5	5	18	18.3
GSA51	19	6	6	21.5	21.8
GSA63	19	6	6	21.5	21.8

EIXO VAZADO DE SAÍDA					
MOD.	ØD ^{H7}	CHAVETA		RASGO	
		b	h	t1	t2
GSA28	14	5	5	16	16.3
GSA41	19	6	6	21.5	21.8
GSA51	25	8	7	28	28.3
GSA63	30	8	7	33	33.3

EIXO MACIÇO DE SAÍDA					
MOD.	ØD ^{I6}	CHAVETA		RASGO	
		b	h	t1	t2
GSA28	14	5	5	16	16.3
GSA41	19	6	6	21.5	21.8
GSA51	24	8	7	27	27.3
GSA63	28	8	7	31	31.3

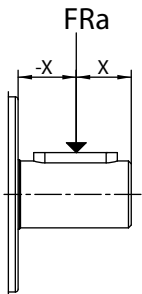
FORÇAS RADIAIS

MOD.	RED	SAÍDA	
		RPM SAÍDA	Fra (N)
GSA 28	7.5	226.7	1600
	10	170.0	1600
	15	113.3	1600
	20	85.0	1600
	25	68.0	1850
	30	56.7	2100
	40	42.5	2100
	60	28.3	2100

MOD.	RED	SAÍDA	
		RPM SAÍDA	Fra (N)
GSA 41	7.5	226.7	1800
	10	170.0	1800
	12	141.7	1800
	15	113.3	2000
	20	85.0	2500
	25	68.0	2700
	30	56.7	3000
	40	42.5	3100
	50	34.0	3100
	60	28.3	3100
	80	21.3	3100

MOD.	RED	SAÍDA	
		RPM SAÍDA	Fra (N)
GSA 51	7.5	226.7	2500
	10	170.0	2500
	12	141.7	2800
	15	113.3	3200
	20	85.0	3500
	25	68.0	3700
	30	56.7	3900
	40	42.5	4300
	50	34.0	4500
	60	28.3	4800
	100	17.0	5100

MOD.	RED	SAÍDA	
		RPM SAÍDA	Fra (N)
GSA 63	7.5	226.7	3400
	10	170.0	3400
	15	113.3	4000
	20	85.0	4500
	25	68.0	5000
	30	56.7	5400
	40	42.5	6000
	50	34.0	6500
	60	28.3	6500
	80	21.3	6500
	100	17.0	6500



$$GSA 28 - F_x = \frac{FRa \cdot 62}{(62 \pm X)}$$

$$GSA 51 - F_x = \frac{FRa \cdot 95}{(95 \pm X)}$$

$$GSA 41 - F_x = \frac{FRa \cdot 86}{(86 \pm X)}$$

$$GSA 63 - F_x = \frac{FRa \cdot 122}{(122 \pm X)}$$

- O valor de X deve ser negativo se a carga aplicada for à esquerda do centro do eixo e positivo quando for à direita, como mostra o desenho.
- O valor de FRa deve ser retirado da tabela de Forças Radiais de Saída.

