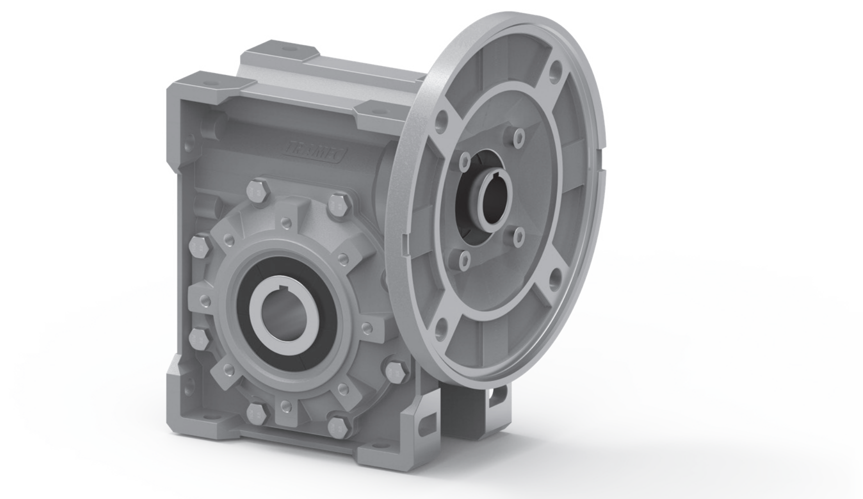
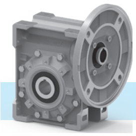
NEMA

B Worm gear reducers XN | *Reductores sinfin corona XN* B1

INDEX | ***INDICE***





Worm gear reducers
XN

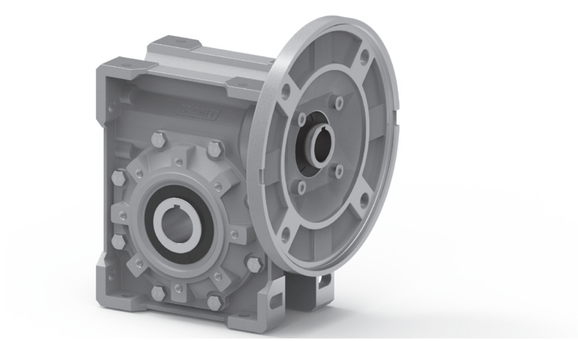
2.1 Characteristics

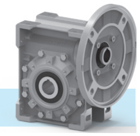
- X series worm gear reducers are available in the following versions: XF (only size 40) and XC (all sizes except 40) suitable for motor mounting assembling.
- The XF version (bell + joint) suits a wider range of applications and provides higher efficiency than the XC compact version, which actually offers reduced space requirement.
- The enbloc housing is in cast-iron for size 90, in die-cast aluminium for sizes 40, 50, 63, 75 and 89.
- The worm shaft is in case-and quenchhardened alloy steel and ground.
- The worm wheel has a cast-iron hub provided with inserted cast-bronze ring.
- The cast-iron housings are painted BLUE RAL5010 whereas the aluminium housings are sandblasted.
- The hollow output shaft is supplied as standard. A broad range of accessories is available: second input, tapered roller bearings on the worm wheel, output flange, single or double-extended output shaft, torque limiter with through output bore, torque arm, output bore protection kit, torque limiter protection kit.

Reductores sinfin corona
XN

2.1 Características

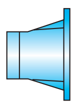
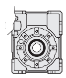
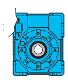
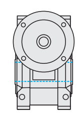
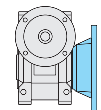
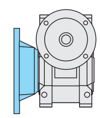
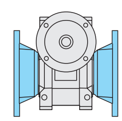
- *Los reductores de sinfin corona de la serie X están disponibles en las versiones: XF (solo tamaño 40) y XC (todos los tamaños excepto 40) adecuados para el montaje del motor.*
- *La versión XF (campana + junta), caracterizada por una amplia versatilidad en los distintos tipos de aplicaciones, presenta un mayor rendimiento con respecto a la serie XC, que a su vez, tiene la ventaja de ocupar un espacio menor.*
- *La carcarsa monobloque es de hierro fundido para el tamaño 90 y para los tamaños inferiores de aluminio fundido bajo presión.*
- *Los tornillos sin fin son de acero aleado cementado templado y son rectificados.*
- *Los dientes de los engranajes realizados en hierro fundido y el anillo en bronce.*
- *Las carcasas en hierro fundido pintadas de AZUL RAL 5010 mientras que las de aluminio pulidas a chorro de arena.*
- *Está incluido el eje de salida hueco de serie, con una amplia disponibilidad de accesorios: segunda entrada, cojinetes de bolas sobre el engranaje, brida de salida, eje lento con 1 y dos salidas, limitador de par con agujero pasante, brazo de reacción, kit de protección eje hueco, kit protección limitador de par.*





2.2 Designation

2.2 Nomenclatura

Gear reducer *Reductores*	Input type *Tipo entrada*	Size *Tamaño*	Ratio *Relación redu.*	Motor coupling *Enganche motor.*	Mounting position *Posición montaje*	Hollow output shaft *Eje hueco de salida*	Output flange *Brida de salida*
XN	**C**	**50**	**10/1**	**NEMA**	**B3**	**H25**	**F1S**
Worm gear reducer ***Reductores de sinfin corona***	 **C**  **F**	 Aluminium *Aluminio* **40** (1) **50** (2) **63** (2) **75** (2) **89** (2)  Cast iron *Hierro fundido* **90** (2)	**5** **7.5** **10** **15** **20** **25** **30** **40** **50** **65** **80** **100**	**56C** **143 TC** **145 TC** **182 TC** **184 TC**	**B3, B6** **B7, B8** **V5, V6**	see tables *ver tablas* 	 **F1D-F2D-F3D**  **F1S-F2S-F3S**  **F12-F22-F32**

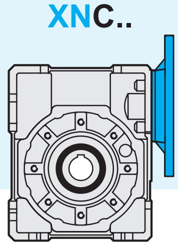
(1): only with input type F
(2): only with input type C

(1): *solo con entrada tipo F*
(2): *solo con entrada tipo C*

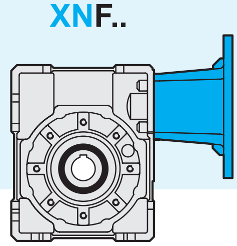
Input type

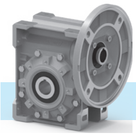
Tipo entrada

XNC..



XNF..





2.3 Lubrication

XN series worm gear reducers are supplied with synthetic lubricant, PAG base, viscosity index ISO VG320.
Mounting position always to be specified when ordering.

For more details, see page A5, paragraph 1.7.

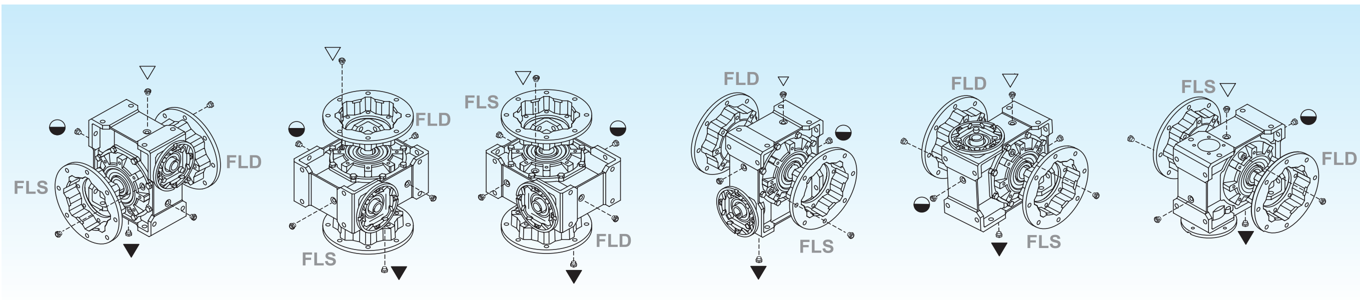
2.3 Lubricación

Los reductores de la serie XN se entregan completos de lubricante sintético a base PAG con viscosidad ISO VG320.
Se ruega precisar la posición de montaje deseada a la hora de realizar el pedido.

Para más detalles ver página A5 párrafo 1.7

Mounting positions

Posición de montaje



B3 B6 B7 B8 V5 V6

▽ Filling and breather / *Carga y respiradero*
◓ Level / *Nivel*
▼ Drain / *Descarga*

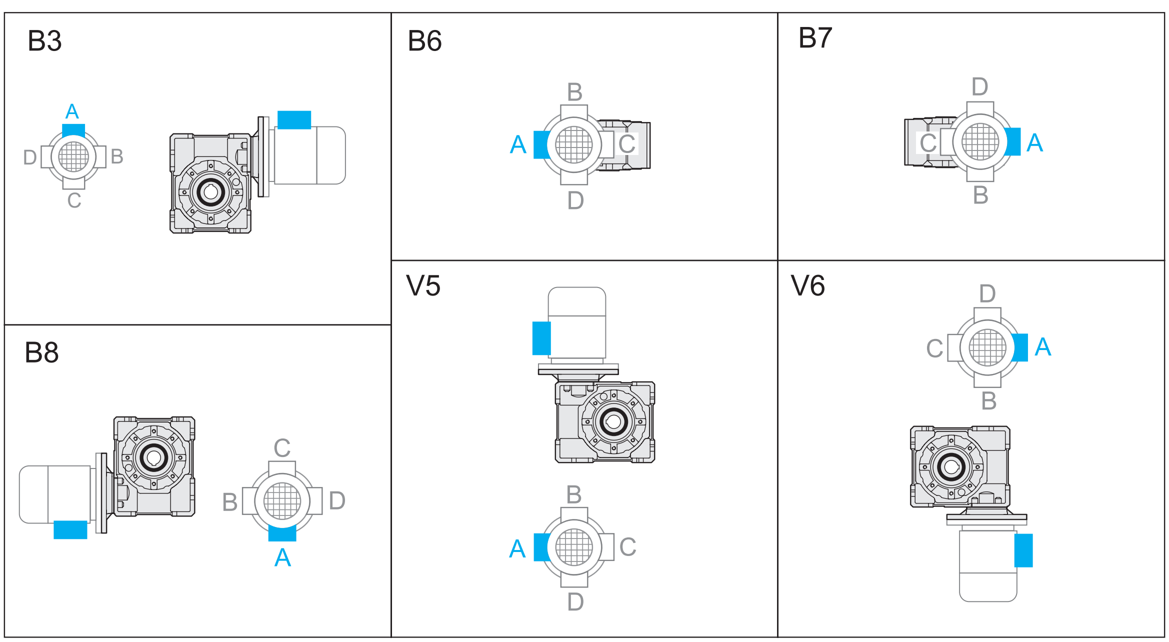
30, 40, 50, 63, 75 and 89 aluminium housings have one oil filling plug only.

Los cuerpos de aluminio 30, 40, 50, 63, 75 tiene solamente un tapón de llenado para aceite.

gal [lt]		Oil quantity / Cant. de aceite			
		Mounting position / *Posición de montaje*			
		B3	**B6 - B7**	**B8**	**V5 - V6**
XN	**40**	0.011 [0.04]	0.016 [0.06]	0.011 [0.04]	
	50	0.021 [0.08]	0.032 [0.12]	0.021 [0.08]	
	63	0.042 [0.16]	0.058 [0.22]	0.042 [0.16]	
	75	0.069 [0.26]	0.090 [0.34]	0.069 [0.26]	
	89	0.119 [0.45]	0.198 [0.75]	0.119 [0.45]	
	90	0.290 [1.1]	0.238 [0.9]	0.264 [1]	0.396 [1.5]

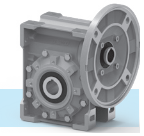
2.4 Terminal board position

2.4 Posición borne



Mounting position always to be specified when ordering. Terminal board position see page B11 (PM=1)

A la hora de realizar el pedido se ruega precisar la posición de montaje y la posicion de la caja de bornes. Posición borne v. pág. B11 (PM=1)



2.5 Radial load

Any transmission device coupled to the output shaft generates radial loads Fr_2.

The load values reported in the table, depending on input and output speed, are to be considered as acting at the half-way point of the projection; if the load is applied at 1/3 of the projection, increase the values in the table by 25%; if the load is applied at 2/3, reduce the values by 25%.

Axial loads applicable at output Fa_2 are reported in the tables.

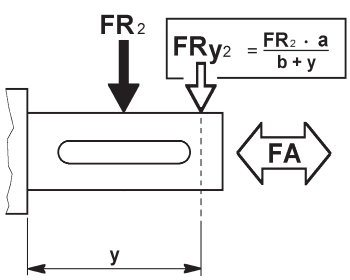
With regard to double projecting shafts, each end can sustain a radial load which equals 3/5 of the values listed in the table, on condition that they act in the same direction and have the same intensity.

2.5 *Cargas radiales*

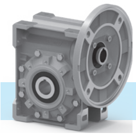
Cada clase de órgano de transmisión que es conectado al eje de salida determina cargas radiales Fr_2.

Los valores señalados en la tabla en función a las varias velocidades de entrada y salida se suponen aplicándolas en la mitad del eje como fuerzas agentes a esta; para una ubicación de 1/3 de la longitud se aumentará hasta un 25% los valores de la tabla, mientras para una posición de 2/3 de la longitud se disminuirá los mismos valores a un 25%.
Los valores de las cargas axiales aplicables en salida F_{a2} están señalados en las tablas.
En los ejes con salida doble, cada extremidad puede soportar una carga radial igual a 3/5 del valor de la tabla, siempre y cuando las cargas aplicables sean de igual intensidad y reaccionen en el mismo sentido.

output
salida



RADIAL BALL BEARINGS / *RODAMIENTOS RADIALES*														
n_1=1750 rpm			40		50		63		75		89		90	
i_n	n_2 [rpm]		a	b	a	b	a	b	a	b	a	b	a	b
		inch	3.287	2.382	4.016	2.894	4.823	3.681	5.276	3.937	6.417	4.646	6.417	0.709
		[mm]	[83.5]	[60.5]	[102]	[73.5]	[122.5]	[93.5]	[134]	[100]	[163]	[118]	[163]	[118]
			Fr_2	Fa_2	Fr_2	Fa_2	Fr_2	Fa_2	Fr_2	Fa_2	Fr_2	Fa_2	Fr_2	Fa_2
5	350	lbf	777	155	777	166	999	200	/		/		/	
		[N]	[1400]	[280]	[1400]	[300]	[1800]	[360]						
7.5	233	lbf	832	166	915	183	1165	233	1387	277	1442	288	1442	288
		[N]	[1500]	[300]	[1650]	[330]	[2100]	[420]	[2500]	[500]	[2600]	[520]	[2600]	[520]
10	175	lbf	888	178	999	200	1276	255	1553	311	1664	333	1664	333
		[N]	[1600]	[320]	[1800]	[360]	[2300]	[460]	[2800]	[560]	[3000]	[600]	[3000]	[600]
15	117	lbf	943	189	1082	216	1442	288	1664	333	1886	377	1886	377
		[N]	[1700]	[340]	[1950]	[390]	[2600]	[520]	[3000]	[600]	[3400]	[680]	[3400]	[680]
20	87.5	lbf	999	200	1221	244	1553	311	1831	366	2108	422	2108	422
		[N]	[1800]	[360]	[2200]	[440]	[2800]	[560]	[3300]	[660]	[3800]	[760]	[3800]	[760]
25	70	lbf	1054	211	1332	266	1720	344	2053	411	2275	455	2275	455
		[N]	[1900]	[380]	[2400]	[480]	[3100]	[620]	[3700]	[740]	[4100]	[820]	[4100]	[820]
30	58	lbf	1110	222	1442	288	1886	377	2219	444	2497	499	2497	499
		[N]	[2000]	[400]	[2600]	[520]	[3400]	[680]	[4000]	[800]	[4500]	[900]	[4500]	[900]
40	44	lbf	1165	233	1581	316	2053	411	2441	488	2719	544	2719	544
		[N]	[2100]	[420]	[2850]	[570]	[3700]	[740]	[4400]	[880]	[4900]	[980]	[4900]	[980]
50	35	lbf	1221	244	1720	344	2219	444	2691	538	2940	588	2940	588
		[N]	[2200]	[440]	[3100]	[620]	[4000]	[800]	[4850]	[970]	[5300]	[1060]	[5300]	[1060]
60	29	lbf	1332	266	1775	355	2330	466	2774	555	3107	621	3107	621
		[N]	[2400]	[480]	[3200]	[640]	[4200]	[840]	[5000]	[1000]	[5600]	[1120]	[5600]	[1120]
63	28	lbf	1387	277	1886	377	2469	494	2940	588	3273	655	3273	655
		[N]	[2500]	[500]	[3400]	[680]	[4450]	[890]	[5300]	[1060]	[5900]	[1180]	[5900]	[1180]
80	22	lbf	1498	300	2108	422	2719	544	3218	644	3606	721	3606	721
		[N]	[2700]	[540]	[3800]	[760]	[4900]	[980]	[5800]	[1160]	[6500]	[1300]	[6500]	[1300]
100	17.5	lbf	1664	333	2219	444	2996	599	3606	721	3884	777	3884	777
		[N]	[3000]	[600]	[4000]	[800]	[5400]	[1080]	[6500]	[1300]	[7000]	[1400]	[7000]	[1400]
120	15	lbf	1720	344	2275	455	3051	610	3634	727	3939	788	3939	788
		[N]	[3100]	[620]	[4100]	[820]	[5500]	[1100]	[6550]	[1310]	[7100]	[1420]	[7100]	[1420]
150	12	lbf	1748	350	2358	472	3107	621	3662	732	4050	810	4050	810
		[N]	[3150]	[630]	[4250]	[850]	[5600]	[1120]	[6600]	[1320]	[7300]	[1460]	[7300]	[1460]
160	11	lbf	1775	355	2386	477	3162	632	3717	743	4106	821	4106	821
		[N]	[3200]	[640]	[4300]	[860]	[5700]	[1140]	[6700]	[1340]	[7400]	[1480]	[7400]	[1480]
≥ 200	≤ 9	lbf	1831	366	2497	499	3329	666	3939	788	4383	877	4383	877
		[N]	[3300]	[660]	[4500]	[900]	[6000]	[1200]	[7100]	[1420]	[7900]	[1580]	[7900]	[1580]



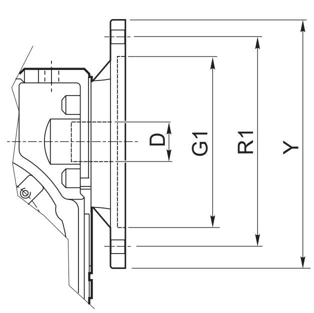
2.6 **Technical data**

2.6 ***Datos técnicos***

	n_1 = 1750				XNF					
	i_n	n_2 [min-1]	Rd	P_{t0} [Hp]	T_2 [Ft•lb]	T_2 [Nm]	P_1 [Hp]	P_1 [kW]	FS'	NEMA
40	**5**	350	0.87	1.1	**10**	13	**0.75**	**0.55**	2.6	**56 C**
	7.5	233	0.85	1.1	**14**	19	**0.75**	**0.55**	2.1	
	10	175	0.83	0.9	**18**	25	**0.75**	**0.55**	1.6	
	15	117	0.79	0.7	**18**	24	**0.50**	**0.37**	1.8	
	20	88	0.76	0.7	**23**	31	**0.50**	**0.37**	1.3	
	25	70	0.72	0.5	**18**	25	**0.33**	**0.25**	1.4	
lb	**30**	58	0.68	0.5	**21**	28	**0.33**	**0.25**	1.5	
5.3	**40**	44	0.64	0.4	**18**	25	**0.25**	**0.18**	1.5	
	50	35	0.59	0.4	**21**	29	**0.25**	**0.18**	1.3	

	n_1 = 1750				XNC					
	i_n	n_2 [min-1]	Rd	P_{t0} [Hp]	T_2 [Ft•lb]	T_2 [Nm]	P_1 [Hp]	P_1 [kW]	FS'	NEMA
50	**5**	350	0.87	1.6	**10**	13	**0.75**	**0.55**	4.8	**56 C**
	7.5	233	0.86	1.6	**14**	19	**0.75**	**0.55**	3.7	
	10	175	0.84	1.3	**18**	25	**0.75**	**0.55**	2.9	
	15	117	0.80	1.1	**27**	36	**0.75**	**0.55**	2.1	
	20	88	0.78	0.9	**35**	47	**0.75**	**0.55**	1.6	
	25	70	0.74	0.8	**27**	37	**0.50**	**0.37**	1.8	
	30	58	0.71	0.8	**32**	43	**0.50**	**0.37**	1.5	
lb	**40**	44	0.67	0.7	**40**	54	**0.50**	**0.37**	1.3	
	50	35	0.62	0.5	**31**	42	**0.33**	**0.25**	1.7	
8.8	**65**	27	0.58	0.5	**38**	51	**0.33**	**0.25**	1.3	
	80	22	0.54	0.5	**31**	42	**0.25**	**0.18**	1.4	

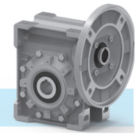
	n_1 = 1750				XNC							
	i_n	n_2 [min-1]	Rd	P_{t0} [Hp]	T_2 [Ft•lb]	T_2 [Nm]	P_1 [Hp]	P_1 [kW]	FS'	NEMA		
63	**5**	350	0.88	2.4	**27**	36	**2.0**	**1.5**	3.1	**56 C**	**143 TC**	**145 TC**
	7.5	233	0.87	2.4	**39**	53	**2.0**	**1.5**	2.3			
	10	175	0.85	2.1	**51**	70	**2.0**	**1.5**	1.8			
	15	117	0.81	1.6	**73**	99	**2.0**	**1.5**	1.3			
	20	88	0.80	1.6	**70**	96	**1.5**	**1.1**	1.5			
	25	70	0.77	1.3	**58**	79	**1.0**	**0.75**	1.5			
	30	58	0.73	1.2	**67**	90	**1.0**	**0.75**	1.6			
	40	44	0.69	1.1	**83**	112	**1.0**	**0.75**	1.3			
lb	**50**	35	0.65	0.9	**72**	98	**0.75**	**0.55**	1.2			
14.6	**65**	27	0.61	0.8	**59**	80	**0.50**	**0.37**	1.5		—	—
	80	22	0.58	0.8	**46**	63	**0.33**	**0.25**	1.8			
	100	18	0.53	0.7	**52**	70	**0.33**	**0.25**	1.5			



		NEMA	
		56C	**143TC - 145TC**
G1	in [mm]	4 1/2" [110.25]	
R1	in [mm]	5 7/8" [149.225]	
Y	in [mm]	6 1/2" [165.10]	
D	in [mm]	5/8" [15.875]	7/8" [22.225]

* **WARNING:** Maximum allowable torque [T_{2M}] must be calculated using the following service factor : $T_{2M} = T_2 \times FS'$

** **ATENCION:** el par máximo utilizable [T_{2M}] deberá calcularse con respecto al factor de servicio: $T_{2M} = T_2 \times FS'$*



2.6 Technical data

2.6 Datos técnicos

<table>
<tr><td rowspan="2"></td><td colspan="4">n_1 = 1750</td><td colspan="10">XNC</td></tr>
<tr><td>i_n</td><td>n_2 [min-¹]</td><td>Rd</td><td>P_{t0} [Hp]</td><td>T_2 [Ft•lb]</td><td>[Nm]</td><td>P_1 [Hp]</td><td>[kW]</td><td>FS’</td><td colspan="5">NEMA</td></tr>
<tr><td rowspan="11">75
lb
19.8</td><td>7.5</td><td>233</td><td>0.87</td><td>3.4</td><td>94</td><td>128</td><td>5.0</td><td>3.6</td><td>1.4</td><td rowspan="5"></td><td rowspan="9">143 TC</td><td rowspan="9">145 TC</td><td rowspan="4">182 TC</td><td rowspan="4">184 TC</td></tr>
<tr><td>10</td><td>175</td><td>0.86</td><td>3.1</td><td>76</td><td>103</td><td>3.0</td><td>2.2</td><td>1.9</td></tr>
<tr><td>15</td><td>117</td><td>0.83</td><td>2.5</td><td>110</td><td>149</td><td>3.0</td><td>2.2</td><td>1.4</td></tr>
<tr><td>20</td><td>88</td><td>0.81</td><td>2.3</td><td>97</td><td>132</td><td>2.0</td><td>1.5</td><td>1.7</td></tr>
<tr><td>25</td><td>70</td><td>0.78</td><td>2.0</td><td>118</td><td>160</td><td>2.0</td><td>1.5</td><td>1.3</td><td rowspan="7"></td><td rowspan="7"></td></tr>
<tr><td>30</td><td>58</td><td>0.74</td><td>1.6</td><td>99</td><td>134</td><td>1.5</td><td>1.1</td><td>1.6</td><td rowspan="6">56 C</td></tr>
<tr><td>40</td><td>44</td><td>0.71</td><td>1.5</td><td>125</td><td>170</td><td>1.5</td><td>1.1</td><td>1.4</td></tr>
<tr><td>50</td><td>35</td><td>0.67</td><td>1.3</td><td>101</td><td>137</td><td>1.0</td><td>0.75</td><td>1.5</td></tr>
<tr><td>65</td><td>27</td><td>0.63</td><td>1.2</td><td>91</td><td>123</td><td>0.75</td><td>0.55</td><td>1.6</td></tr>
<tr><td>80</td><td>22</td><td>0.60</td><td>1.1</td><td>106</td><td>143</td><td>0.75</td><td>0.55</td><td>1.3</td><td rowspan="2">—</td><td rowspan="2">—</td></tr>
<tr><td>100</td><td>18</td><td>0.56</td><td>0.9</td><td>120</td><td>163</td><td>0.75</td><td>0.55</td><td>1.0</td></tr>
</table>

<table>
<tr><td rowspan="2"></td><td colspan="4">n_1 = 1750</td><td colspan="10">XNC</td></tr>
<tr><td>i_n</td><td>n_2 [min-¹]</td><td>Rd</td><td>P_{t0} [Hp]</td><td>T_2 [Ft•lb]</td><td>[Nm]</td><td>P_1 [Hp]</td><td>[kW]</td><td>FS’</td><td colspan="5">NEMA</td></tr>
<tr><td rowspan="11">89
lb
28.7</td><td>7.5</td><td>233</td><td>0.88</td><td>4.0</td><td>96</td><td>130</td><td>5.0</td><td>3.6</td><td>2.2</td><td rowspan="7">—</td><td rowspan="6">—</td><td rowspan="6">—</td><td rowspan="6">182 TC</td><td rowspan="6">184 TC</td></tr>
<tr><td>10</td><td>175</td><td>0.86</td><td>3.4</td><td>125</td><td>169</td><td>5.0</td><td>3.6</td><td>1.8</td></tr>
<tr><td>15</td><td>117</td><td>0.84</td><td>3.0</td><td>111</td><td>151</td><td>3.0</td><td>2.2</td><td>2.1</td></tr>
<tr><td>20</td><td>88</td><td>0.82</td><td>2.7</td><td>145</td><td>196</td><td>3.0</td><td>2.2</td><td>1.8</td></tr>
<tr><td>25</td><td>70</td><td>0.80</td><td>2.4</td><td>177</td><td>240</td><td>3.0</td><td>2.2</td><td>1.4</td></tr>
<tr><td>30</td><td>58</td><td>0.76</td><td>2.0</td><td>203</td><td>275</td><td>3.0</td><td>2.2</td><td>1.3</td></tr>
<tr><td>40</td><td>44</td><td>0.72</td><td>1.7</td><td>173</td><td>234</td><td>2.0</td><td>1.5</td><td>1.6</td><td rowspan="4">143 TC</td><td rowspan="4">145 TC</td><td rowspan="5">—</td><td rowspan="5">—</td></tr>
<tr><td>50</td><td>35</td><td>0.69</td><td>1.5</td><td>208</td><td>282</td><td>2.0</td><td>1.5</td><td>1.3</td><td rowspan="4">56 C</td></tr>
<tr><td>65</td><td>27</td><td>0.65</td><td>1.3</td><td>187</td><td>253</td><td>1.5</td><td>1.1</td><td>1.3</td></tr>
<tr><td>80</td><td>22</td><td>0.63</td><td>1.3</td><td>151</td><td>205</td><td>1.0</td><td>0.75</td><td>1.5</td></tr>
<tr><td>100</td><td>18</td><td>0.58</td><td>1.1</td><td>125</td><td>169</td><td>0.75</td><td>0.55</td><td>1.6</td><td>—</td><td>—</td></tr>
</table>

<table>
<tr><td rowspan="2"></td><td colspan="4">n_1 = 1750</td><td colspan="10">XNC</td></tr>
<tr><td>i_n</td><td>n_2 [min-¹]</td><td>Rd</td><td>P_{t0} [Hp]</td><td>T_2 [Ft•lb]</td><td>[Nm]</td><td>P_1 [Hp]</td><td>[kW]</td><td>FS’</td><td colspan="5">NEMA</td></tr>
<tr><td rowspan="11">90
lb
52.0</td><td>7.5</td><td>233</td><td>0.88</td><td>4.0</td><td>96</td><td>130</td><td>5.0</td><td>3.6</td><td>2.2</td><td rowspan="7">—</td><td rowspan="6">—</td><td rowspan="6">—</td><td rowspan="6">182 TC</td><td rowspan="6">184 TC</td></tr>
<tr><td>10</td><td>175</td><td>0.86</td><td>3.4</td><td>125</td><td>169</td><td>5.0</td><td>3.6</td><td>1.8</td></tr>
<tr><td>15</td><td>117</td><td>0.84</td><td>3.0</td><td>111</td><td>151</td><td>3.0</td><td>2.2</td><td>2.1</td></tr>
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<tr><td>25</td><td>70</td><td>0.80</td><td>2.4</td><td>177</td><td>240</td><td>3.0</td><td>2.2</td><td>1.4</td></tr>
<tr><td>30</td><td>58</td><td>0.76</td><td>2.0</td><td>203</td><td>275</td><td>3.0</td><td>2.2</td><td>1.3</td></tr>
<tr><td>40</td><td>44</td><td>0.72</td><td>1.7</td><td>173</td><td>234</td><td>2.0</td><td>1.5</td><td>1.6</td><td rowspan="4">143 TC</td><td rowspan="4">145 TC</td><td rowspan="5">—</td><td rowspan="5">—</td></tr>
<tr><td>50</td><td>35</td><td>0.69</td><td>1.5</td><td>208</td><td>282</td><td>2.0</td><td>1.5</td><td>1.3</td><td rowspan="4">56 C</td></tr>
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<tr><td>80</td><td>22</td><td>0.63</td><td>1.3</td><td>151</td><td>205</td><td>1.0</td><td>0.75</td><td>1.5</td></tr>
<tr><td>100</td><td>18</td><td>0.58</td><td>1.1</td><td>125</td><td>169</td><td>0.75</td><td>0.55</td><td>1.6</td><td>—</td><td>—</td></tr>
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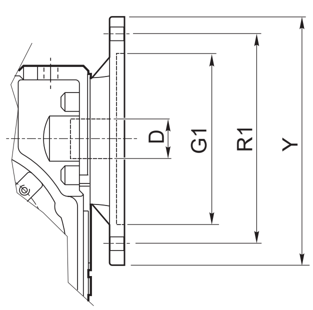
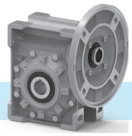


<table>
<tr><td></td><td></td><td colspan="3">NEMA</td></tr>
<tr><td></td><td></td><td>56C</td><td>143TC - 145TC</td><td>182TC - 184 TC</td></tr>
<tr><td>G1</td><td>in
[mm]</td><td colspan="2">4 1/2”
[110.25]</td><td>8 1/2”
[215.9]</td></tr>
<tr><td>R1</td><td>in
[mm]</td><td colspan="2">5 7/8”
[149.225]</td><td>7 1/4”
[184.15]</td></tr>
<tr><td>Y</td><td>in
[mm]</td><td colspan="2">6 1/2”
[165.10]</td><td>9”
[228.6]</td></tr>
<tr><td>D</td><td>in
[mm]</td><td>5/8”
[15.875]</td><td>7/8”
[22.225]</td><td>1 1/8”
[28.575]</td></tr>
</table>

* **WARNING:** Maximum allowable torque [T_{2M}] must be calculated using the following service factor : $T_{2M} = T_2$ x FS’

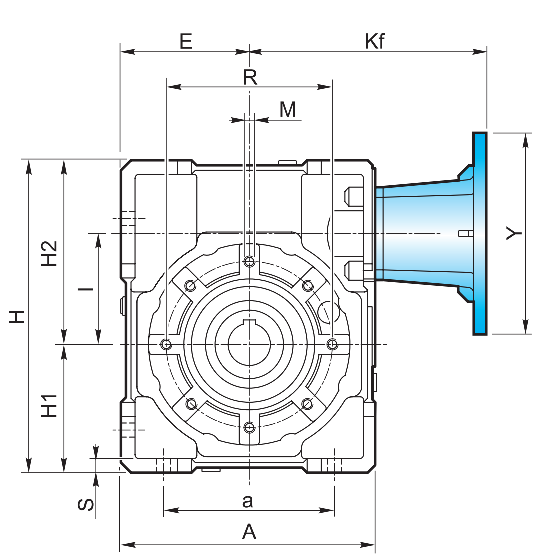
* ***ATENCION:*** *el par máximo utilizable [T_{2M}] deberá calcularse con respecto al factor de servicio: $T_{2M} = T_2$ x FS’*

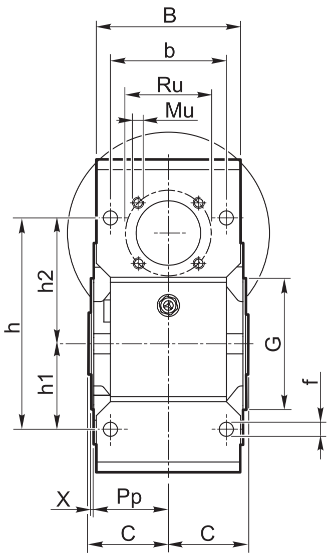


2.7 **Dimensions**

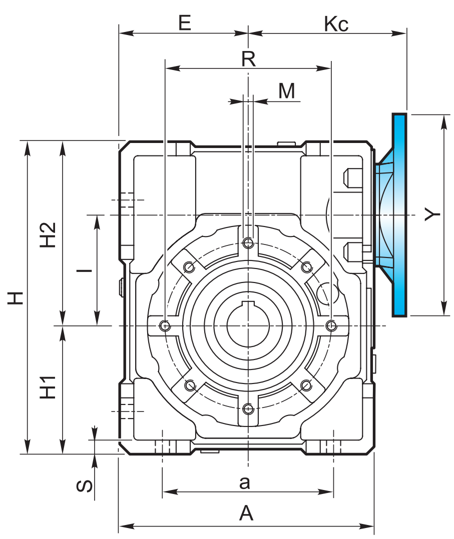
2.7 ***Dimensiones***

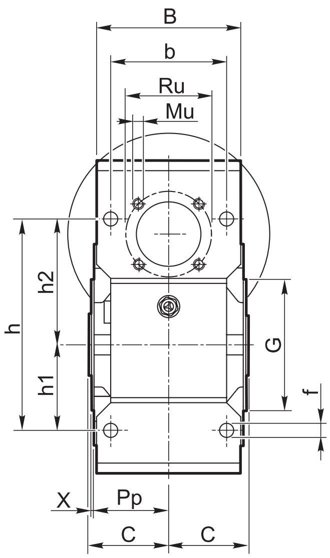
XNF

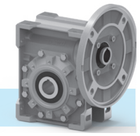




XNC



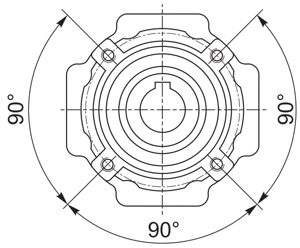




2.7 Dimensions
2.7 *Dimensiones*

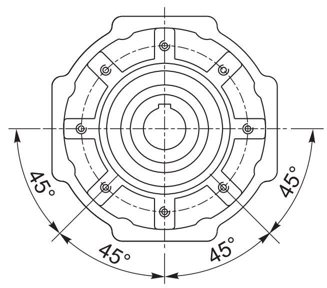
Shaft-mounted flange / *Brida pendular*

40 - 50



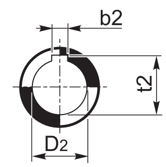
4 Holes / *Agujeros*

63 - 75 - 89 - 90



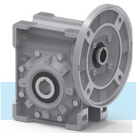
8 Holes / *Agujeros*

Output hollow shaft
Eje hueco de salida



XN		A	a	B	b	b_2	C	D_2 H8	E	f	G h8	H	H_1	H_2	h	h_1	h_2
40	in	4.134	2.756	2.795	2.362	**3/16”**	1.535	**3/4”**	1.969	0.256	2.362	4.921	1.969	2.953	3.543	1.378	2.165
	[mm]	[105]	[70]	[71]	[60]	**[4.762]**	[39]	**[19.05]**	[50]	[6.5]	[60]	[125]	[50]	[75]	[90]	[35]	[55]
50	in	4.921	3.150	3.346	2.756	**1/4”**	1.811	**1”**	2.362	0.335	2.756	5.906	2.362	3.543	4.094	1.575	2.520
	[mm]	[125]	[80]	[85]	[70]	**[6.35]**	[46]	**[25.4]**	[60]	[8.5]	[70]	[150]	[60]	[90]	[104]	[40]	[64]
63	in	5.787	3.937	4.055	3.346	**1/4”**	2.205	**1”**	2.835	0.354	3.150	7.165	2.835	4.331	5.118	1.969	3.150
	[mm]	[147]	[100]	[103]	[85]	**[6.35]**	[56]	**[25.4]**	[72]	[9]	[80]	[182]	[72]	[110]	[130]	[50]	[80]
75	in	6.929	4.724	4.409	3.543	**1/4”**	2.362	**1 1/4”**	3.386	0.433	3.740	8.642	3.386	5.256	6.024	2.362	3.661
	[mm]	[176]	[120]	[112]	[90]	**[6.35]**	[60]	**[31.75]**	[86]	[11]	[95]	[219.5]	[86]	[133.5]	[153]	[60]	[93]
89	in	7.992	5.512	5.118	3.937	**5/16”**	2.756	**1 3/8”**	4.055	0.512	4.331	9.783	4.055	5.728	6.772	2.756	4.016
	[mm]	[203]	[140]	[130]	[100]	**[7.938]**	[70]	**[34.925]**	[103]	[13]	[110]	[248.5]	[103]	[145.5]	[172]	[70]	[102]
90	in	7.992	5.512	5.118	3.937	**5/16”**	2.756	**1 3/8”**	4.055	0.512	4.331	9.783	4.055	5.728	6.772	2.756	4.016
	[mm]	[203]	[140]	[130]	[100]	**[7.938]**	[70]	**[34.925]**	[103]	[13]	[110]	[248.5]	[103]	[145.5]	[172]	[70]	[102]

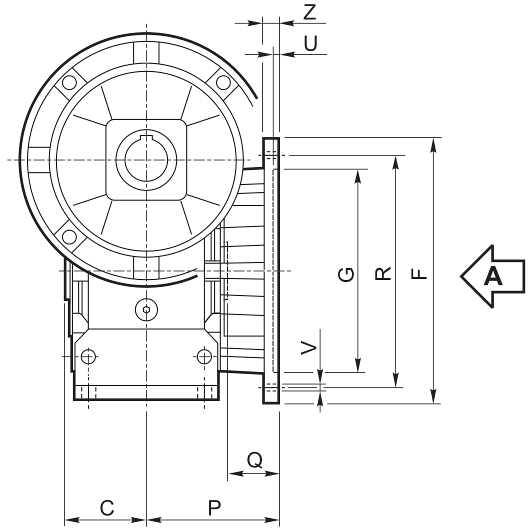
XN		I	K_c	Kf	L	M	M_u	N	P_p	R	Ru	S	t_2	X
40	in	1.575	-	5.287	0.787	M6x0.394	M5x0.394	2.264	1.437	2.953	1.669	0.236	**0.837**	0.059
	[mm]	[40]		[134.3]	[20]	M6x10	M5x10	[57.5]	[36.5]	[75]	[42.4]	[6]	**[21.26]**	[1.5]
50	in	1.969	see page *ver pag.* B11	-	0.984	M8x0.394	M6x0.394	2.657	1.713	3.346	2.114	0.276	**1.114**	0.059
	[mm]	[50]			[25]	M8x10	M6x10	[67.5]	[43.5]	[85]	[53.7]	[7]	**[28.3]**	[1.5]
63	in	2.480		-	1.181	M8x0.551	M6x0.472	3.051	2.087	3.740	2.394	0.315	**1.114**	0.079
	[mm]	[63]			[30]	M8x14	M6x12	[77.5]	[53]	[95]	[60.8]	[8]	**[28.3]**	[2]
75	in	2.953		-	1.575	M8x0.551	M8x0.472	3.740	2.244	4.528	2.783	0.394	**1.367**	0.079
	[mm]	[75]			[40]	M8x14	M8x12	[95]	[57]	[115]	[70.7]	[10]	**[34.72]**	[2]
89	in	3.543		-		M10x18	M8x0.551	—	2.638	5.118	2.783	0.472	**1.518**	0.079
	[mm]	[90]			[—]	M10x18	M8x14		[67]	[130]	[70.7]	[12]	**[38.56]**	[2]
90	in	3.543		-	1.575	M10x0.709	M8x0.551	4.134	2.638	5.118	2.783	0.472	**1.518**	0.079
	[mm]	[90]			[40]	M10x18	M8x14	[105]	[67]	[130]	[70.7]	[12]	**[38.56]**	[2]



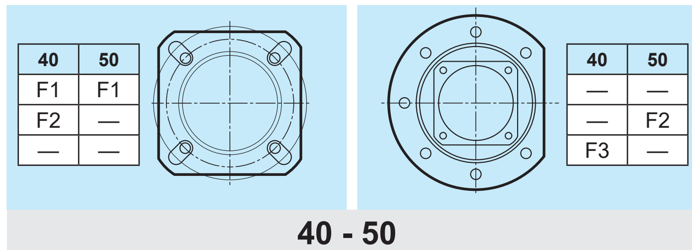
2.7 Dimensions

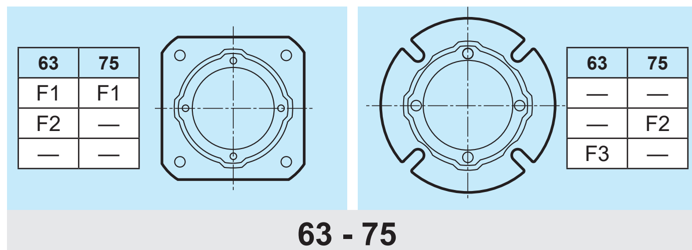
2.7 *Dimensiones*

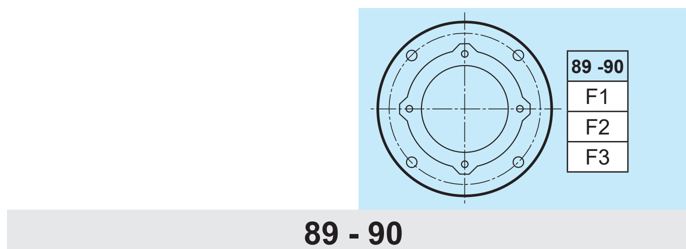
Output flange / *Brida de salida*

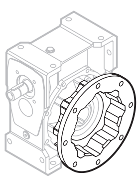


View from A / ***Vista de A***

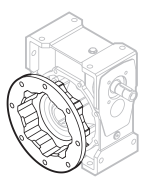




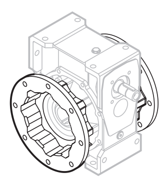




F...D
Standard

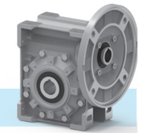


F...S



F...2

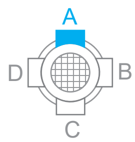
Type *Tipo*		C	F (round flange)	F (square flange)	G H8	P	Q	R	U	V (4 holes)	V (8 holes)	Ø	Z
40	**F1**	1.535 [39]		3.346 [85]	2.362 [60]	2.638 [67]	1.102 [28]	2.952 - 3.543 [75-90]	0.157 [4]	n° 4		0.354 [9]	0.315 [8]
	F2			3.346 [85]	2.362 [60]	3.819 [97]	2.283 [58]	2.952 - 3.543 [75-90]	0.157 [4]	n° 4		0.354 [9]	0.315 [8]
	F3		5.512 [140]		3.740 [95]	3.150 [80]	1.614 [41]	4.528 [115]	0.197 [5]		n° 7	0.354 [9]	0.394 [10]
50	**F1**	1.811 [46]		3.701 [94]	2.756 [70]	3.543 [90]	1.732 [44]	3.346 - 3.937 [85-100]	0.197 [5]	n° 4		0.433 [11]	0.394 [10]
	F2		6.299 [160]		4.331 [110]	3.504 [89]	1.693 [43]	5.118 [130]	0.197 [5]		n° 7	0.433 [11]	0.433 [11]
63	**F1**	2.205 [56]		5.591 [142]	4.528 [115]	3.228 [82]	1.024 [26]	5.906 [150]	0.197 [5]	n° 4		0.433 [11]	0.433 [11]
	F2			5.591 [142]	4.528 [115]	4.409 [112]	2.205 [56]	5.906 [150]	0.197 [5]	n° 4		0.433 [11]	0.433 [11]
	F3		6.299 [160]		4.331 [110]	3.169 [80.5]	0.965 [24.5]	5.118 [130]	0.197 [5]	n° 4		0.433 [11]	0.472 [12]
75	**F1**	2.362 [60]		6.299 [160]	5.118 [130]	4.370 [111]	2.008 [51]	6.496 [165]	0.197 [5]	n° 4		0.512 [13]	0.472 [12]
	F2		6.299 [160]		4.331 [110]	3.543 [90]	1.181 [30]	5.118 [130]	0.236 [6]	n° 4		0.433 [11]	0.512 [13]
89 90	**F1**	2.756 [70]	7.874 [200]		5.984 [152]	4.370 [111]	1.614 [41]	6.890 [175]	0.197 [5]	n° 4		0.512 [13]	0.472 [12]
	F2		7.874 [200]		5.984 [152]	5.945 [151]	3.189 [81]	6.890 [175]	0.197 [5]	n° 4		0.512 [13]	0.512 [13]
	F3		7.874 [200]		5.118 [130]	4.331 [110]	1.575 [40]	6.496 [165]	0.236 [6]	n° 4		0.433 [11]	0.433 [11]



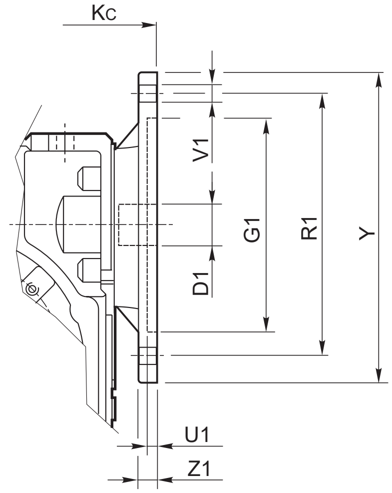
2.7 Dimensions

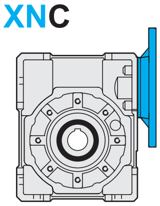
2.7 *Dimensiones*

Input flange / *Brida de entrada*



PM = 1

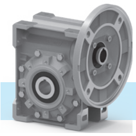




XNC	NEMA		G_1	PM 1	R_1	U_1	V_1 Ø	V_1 (holes)	Y	Z_1	K_c
50	56 C	inch [mm]	4 1/2” [114.3]	•	5 7/8” [149.22]	0.236 [6]	0.394 [10]	4	6 1/2” [165.1]	0.472 [12]	3.583 [91]
63	56 C	inch [mm]	4 1/2” [114.3]	•	5 7/8” [149.22]	0.197 [5]	0.394 [10]	4	6 1/2” [165.1]	0.472 [12]	3.819 [97]
	143 / 145 TC	inch [mm]	4 1/2” [114.3]	•	5 7/8” [149.22]	0.197 [5]	0.394 [10]	4	6 1/2” [165.1]	0.472 [12]	3.819 [97]
75	56 C	inch [mm]	4 1/2” [114.3]	•	5 7/8” [149.22]	0.197 [5]	0.394 [10]	4	6 1/2” [165.1]	0.433 [11]	4.409 [112]
	143 / 145 TC	inch [mm]	4 1/2” [114.3]	•	5 7/8” [149.22]	0.197 [5]	0.394 [10]	4	6 1/2” [165.1]	0.433 [11]	4.409 [112]
	182 / 184 TC	inch [mm]	8 1/2” [215.9]	•	7 1/4” [184.15]	0.216 [5.5]	0.551 [14]	4	9 [228.6]	0.650 [16.5]	4.547 [115.5]
89 90	56 C	inch [mm]	4 1/2” [114.3]	•	5 7/8” [149.22]	0.197 [5]	0.394 [10]	4	6 1/2” [165.1]	0.433 [11]	4.803 [122]
	143 / 145 TC	inch [mm]	4 1/2” [114.3]	•	5 7/8” [149.22]	0.197 [5]	0.394 [10]	4	6 1/2” [165.1]	0.433 [11]	4.803 [122]
	182 / 184 TC	inch [mm]	8 1/2” [215.9]	•	7 1/4” [184.15]	0.216 [5.5]	0.551 [14]	4	9 [228.6]	0.650 [16.5]	4.941 [125.5]

XNC	NEMA		D1 - Holes diameter NEMA / *Diámetro orificios NEMA* 5	7.5	10	15	20	25	30	40	50	65	80	100
50	56 C	inch [mm]	5/8” [15.875]	5/8” [15.875]	5/8” [15.875]	5/8” [15.875]	5/8” [15.875]	5/8” [15.875]	5/8” [15.875]	5/8” [15.875]	5/8” [15.875]	5/8” [15.875]	5/8” [15.875]	/
63	56 C	inch [mm]	5/8” [15.875]	5/8” [15.875]	5/8” [15.875]	5/8” [15.875]	5/8” [15.875]	5/8” [15.875]	5/8” [15.875]	5/8” [15.875]	5/8” [15.875]	5/8” [15.875]	5/8” [15.875]	5/8” [15.875]
	143 / 145 TC	inch [mm]	7/8” [22.225]	7/8” [22.225]	7/8” [22.225]	7/8” [22.225]	7/8” [22.225]	7/8” [22.225]	7/8” [22.225]	7/8” [22.225]	7/8” [22.225]	/	/	/
75	56 C	inch [mm]	/	/	/	/	/	/	5/8” [15.875]	5/8” [15.875]	5/8” [15.875]	5/8” [15.875]	5/8” [15.875]	5/8” [15.875]
	143 / 145 TC	inch [mm]	/	7/8” [22.225]	7/8” [22.225]	7/8” [22.225]	7/8” [22.225]	7/8” [22.225]	7/8” [22.225]	7/8” [22.225]	7/8” [22.225]	7/8” [22.225]	/	/
	182 / 184 TC	inch [mm]	/	1 1/8” [28.575]	1 1/8” [28.575]	1 1/8” [28.575]	1 1/8” [28.575]	/	/	/	/	/	/	/
89 90	56 C	inch [mm]	/	/	/	/	/	/	/	/	5/8” [15.875]	5/8” [15.875]	5/8” [15.875]	5/8” [15.875]
	143 / 145 TC	inch [mm]	/	/	/	/	/	/	/	7/8” [22.225]	7/8” [22.225]	7/8” [22.225]	7/8” [22.225]	/
	182 / 184 TC	inch [mm]	/	1 1/8” [28.575]	1 1/8” [28.575]	1 1/8” [28.575]	1 1/8” [28.575]	1 1/8” [28.575]	1 1/8” [28.575]	/	/	/	/	/

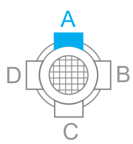
N.B.: STD mounting of P_M=1
N.B.: El montaje STD de P_M=1

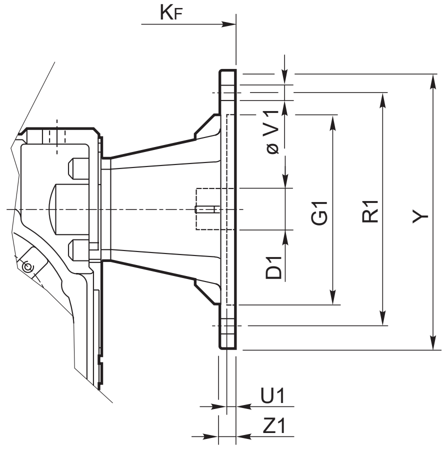


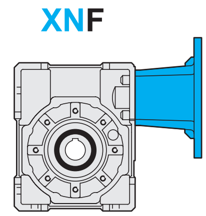
2.7 Dimensions

2.7 Dimensiones

Input flange / *Brida de entrada*

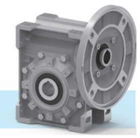






XNF	IEC		G_1	PM 1	K_F	R_1	U_1	V_1 Ø	V_1	Y	Z_1	D1
40	56 C	inch	4 1/2”	•	5.287	5 7/8”	0.197	0.394	4	0.472	0.472	5/8”
		[mm]	[114.3]		[134.3]	[149.22]	[5]	[10]		[12]	[12]	[15.875]

N.B.: STD mounting of P_M=1
N.B.: El montaje STD de P_M=1



2.8 Accessories

2.8 *Accesorios*

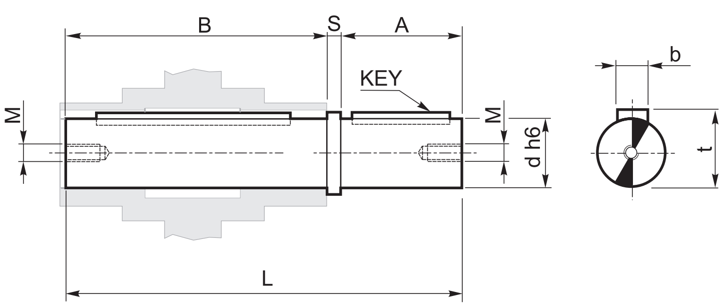
Output shaft

Eje lento

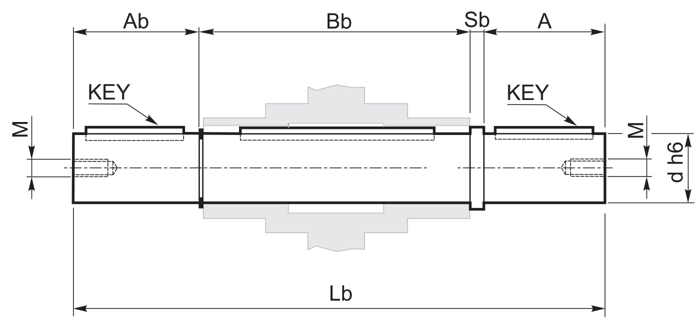
To be produced on request

A producir bajo petición

Single output shaft
Eje lento standard

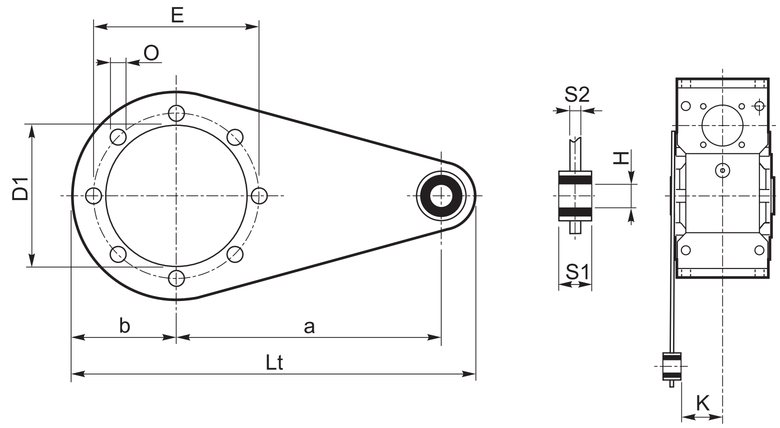


Double output shaft
Eje lento doble



X		A	B	b	d h6	L	M	S	t	A	A_b	B_b	d h6	L_b	S_b
30	inch	1.1875	2.441	0.1875	**1/2”**	3.737	1/4” - 20	0.1085	0.70	1.1875	1.1875	2.520	**1/2”**	5.0035	0.1085
	[mm]	[30.2]	[62]	[4.76]	**[12.7]**	[94.9]		[2.76]	[17.78]	[30.2]	[30.2]	[64]	**[12.7]**	[127.1]	[2.76]
40	inch	1.594	3.031	0.1875	**3/4”**	4.750	1/4” - 20	0.125	0.83	1.594	1.594	3.110	**3/4”**	6.423	0.125
	[mm]	[40.49]	[77]	[4.76]	**[19.05]**	[120.7]		[3.17]	[21.08]	[40.49]	[40.49]	[79]	**[19.05]**	[163.2]	[3.17]
50	inch	1.97	3.543	0.250	**1”**	5.653	3/8” - 16	0.14	1.11	1.97	1.97	3.661	**1”**	7.741	0.14
	[mm]	[50.04]	[90]	[6.35]	**[25.4]**	[143.6]		[3.56]	[28.19]	[50.04]	[50.04]	[93]	**[25.4]**	[196.6]	[3.56]
63	inch	1.969	4.370	0.250	**1” 1 1/4”**	6.510	3/8” - 16	0.171	1.23	1.969	1.969	4.449	**1” 1 1/4”**	8.558	0.171
	[mm]	[50.0]	[111]	[6.35]	**[25.4] [31.75]**	[165.4]		[4.34]	[31.24]	[50.0]	[50.0]	[113]	**[25.4] [31.75]**	[217.4]	[4.34]
75	inch	2.375	4.685	0.250	**1 1/4”**	7.225	1/2” - 13	0.165	1.36	2.375	2.375	4.764	**1 1/4”**	9.679	0.165
	[mm]	[60.33]	[119]	[6.35]	**[31.75]**	[183.5]		[4.19]	[34.54]	[60.33]	[60.33]	[121]	**[31.75]**	[245.8]	[4.19]
89 90	inch	3.156	5.472	0.3125	**1 3/8”**	8.831	1/2” - 13	0.203	1.51	3.156	3.156	5.571	**1 3/8”**	12.086	0.203
	[mm]	[80.16]	[139]	[7.94]	**[34.925]**	[224.3]		[5.156]	[38.354]	[80.16]	[80.16]	[141.5]	**[34.925]**	[307.0]	[5.156]

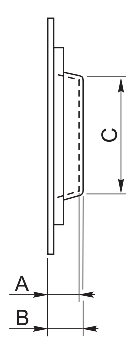
Torque arm *Brazo de reacción*



XN		a	b	D_1	E	H	K	L_t	O	S1	S2
40	in	3.937	1.772	2.362	2.953	0.394	1.240	6.575	0.276	0.551	0.157
	[mm]	[100]	[45]	[60]	[75]	[10]	[31.5]	[167]	[7]	[14]	[4]
50	in	3.937	1.969	2.756	3.346	0.394	1.535	6.772	0.354	0.551	0.197
	[mm]	[100]	[50]	[70]	[85]	[10]	[39]	[172]	[9]	[14]	[5]
63	in	5.906	2.165	3.150	3.740	0.394	1.929	8.937	0.354	0.551	0.236
	[mm]	[150]	[55]	[80]	[95]	[10]	[49]	[227]	[9]	[14]	[6]
75	in	7.874	2.756	3.740	4.528	0.787	1.870	11.890	0.354	0.984	0.236
	[mm]	[200]	[70]	[95]	[115]	[20]	[47.5]	[302]	[9]	[25]	[6]
89 - 90	in	7.874	3.150	4.331	5.118	0.787	2.264	12.283	0.433	0.984	0.236
	[mm]	[200]	[80]	[110]	[130]	[20]	[57.5]	[312]	[11]	[25]	[6]

Protection Kit: *Kit de protección:*

Output bore / *Eje hueco*



XN		A	B	C
40	in	0.551	0.610	1.752
	[mm]	[14]	[15.5]	[44.5]
50	in	0.591	0.650	2.126
	[mm]	[15]	[16.5]	[54]
63	in	0.669	0.748	2.362
	[mm]	[17]	[19]	[60]
75	in	0.689	0.787	2.756
	[mm]	[17.5]	[20]	[70]
89 -90	in	0.846	0.945	3.150
	[mm]	[21.5]	[24]	[80]