

CARACTERISTICAS TECNICAS

PRESION	PRESION MINIMA DE TRABAJO: 10 bar
	PRESION DE TRABAJO CONTINUO: 210 bar
	PRESION DE PRUEBA EN FABRICA: 280 bar
VELOCIDADES	ESTOS CILINDROS ESTAN PREPARADOS EN JUNTAS Y MATERIALES PARA TRABAJAR A VELOCIDADES MAXIMAS COMPRENDIDAS ENTRE 25 Y 30 m/minuto
TEMPERATURA	TEMPERATURA MINIMA: -20°C
	TEMPERATURA MAXIMA: +70°C
	PARA TEMPERATURAS MAS ALTAS CONSULTAR PROVEEDOR
FLUIDOS	ACEITES MINERALES DE VISCOSIDAD ISO VG 32, 46, 68
TIPOS DE SUJECION	9 FIJACIONES DIFERENTES (Pg. 4)

DESIGNACION DE CILINDROS CNV

CNV 40- 28- 500- DT- CHM40

DIAMETRO INTERIOR DEL CILINDRO

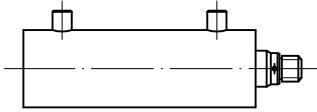
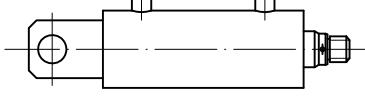
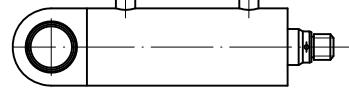
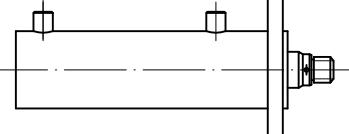
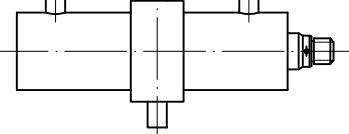
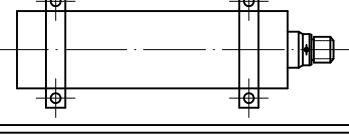
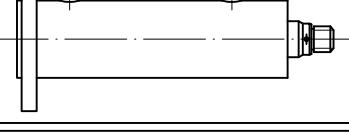
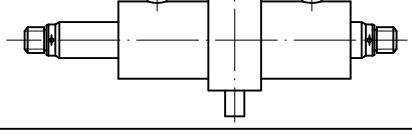
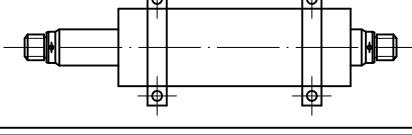
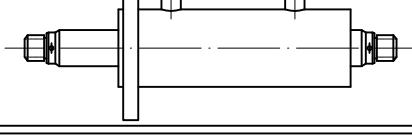
DIAMETRO DEL VASTAGO

CARRERA

TIPO FIJACION DEL CILINDRO

TIPO FIJACION VASTAGO

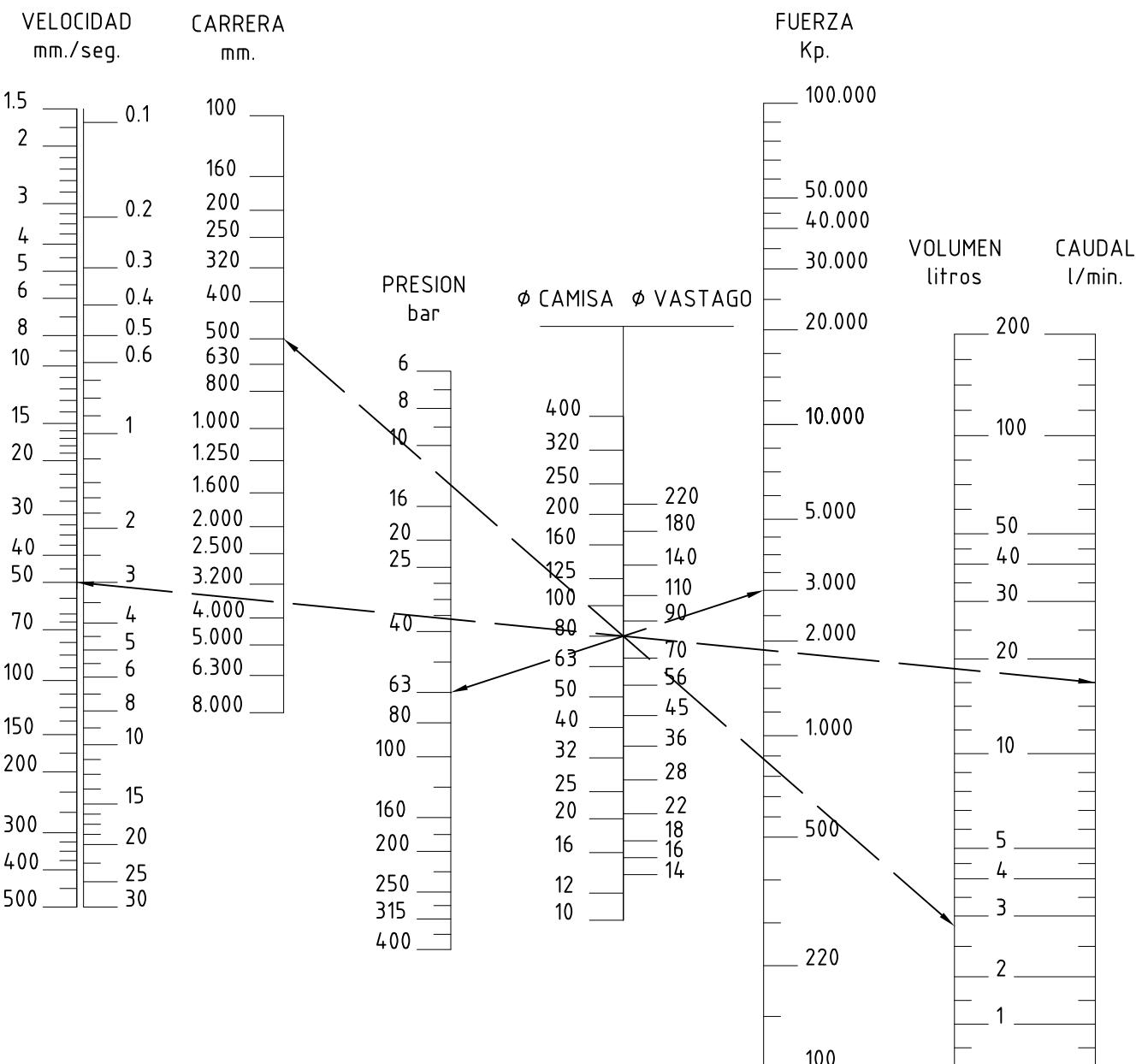
El ejemplo anterior muestra la elección de un cilindro hidráulico de diámetro interior 40mm., diámetro del vástago 28, carrera 500mm. fijación del cilindro por charnela y fijación del vástago chape macho.

TIPOS DE SUJECIONES		
SIN SUJECIÓN	DN	
CON CHARNELA	DT	
CON ROTULA	DR	
CON BRIDA DELANTERA	DPD	
CON MUÑONES	DM	
CON PATAS	DS	
CON BRIDA POSTERIOR	DPP	
MUÑONES Y DOBLE VÁSTAGO	DM-DV	
PATAS Y DOBLE VÁSTAGO	DS-DV	
BRIDA Y DOBLE VÁSTAGO	DP-DV	

ABACO PARA LA ELECCION DEL CILINDRO

DIAMETROS	32-16	40-22	50-28	63-36	80-45	100-56	125-70	160-90	200-110	250-140
Sección total	8.04	12.56	19.36	31.17	50.26	78.53	122.71	201.06	314.16	490.87
Vást. normal	2.01	3.80	6.15	10.17	15.90	24.63	38.48	63.61	95.03	153.90
Secci. anular	6.03	8.78	13.48	21	34.36	53.90	84.23	137.45	219.13	336.97

DIAMETROS	32-20	40-28	50-36	63-45	80-56	100-70	125-90	160-110	200-140	250-180
V. diferencial	3.14	6.15	10.17	15.90	24.63	38.48	63.61	95.03	153.90	254.40
Secci. anular	4.90	6.41	9.46	15.27	25.63	40.05	59.10	106.03	160.26	236.40
roscas gas	1/4"	3/8"	3/8"	1/2"	1/2"	3/4"	3/4"	1"	1 1/4"	1 1/4"



MONTAJE DEL CILINDRO

En muchos casos y sobre todo en carreras muy grandes se hace necesario efectuar el cálculo numérico de seguridad para los esfuerzos de pandeo. Puede darse el caso de que el esfuerzo teórico que esté desarrollando un cilindro de acuerdo con su presión de trabajo y la superficie del émbolo, no pueda ser realizado en la práctica, debido al peligro de pandeo.

CASO 1

Un extremo libre
y otro fijo

CASO 2

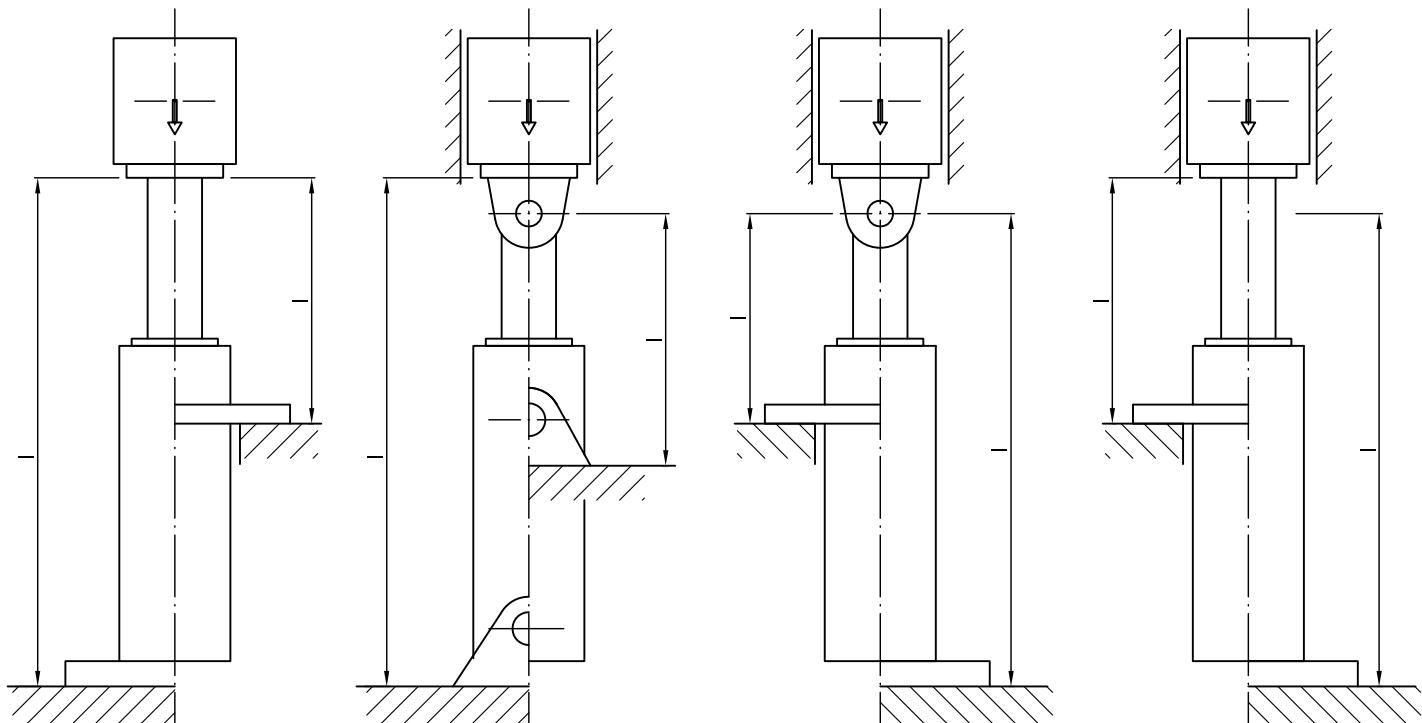
Dos extremos
articulados

CASO 3

Un extremo articulado
y otro fijo

CASO 4

Los dos extremos
fijos



	CASO 1	CASO 2	CASO 3	CASO 4
FORMA DE SUJECION	DPD, DPP, DS	DT, DR, DM	DPD, DPP, DS	DPD, DPP, DS
LONGITUD LIBRE DE PANDEO SK	$SK = 2I$	$SK = I$	$SK = 0.707I$	$SK = I/2$

I: LONGITUD EXTENDIDA DEL VASTAGO

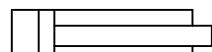
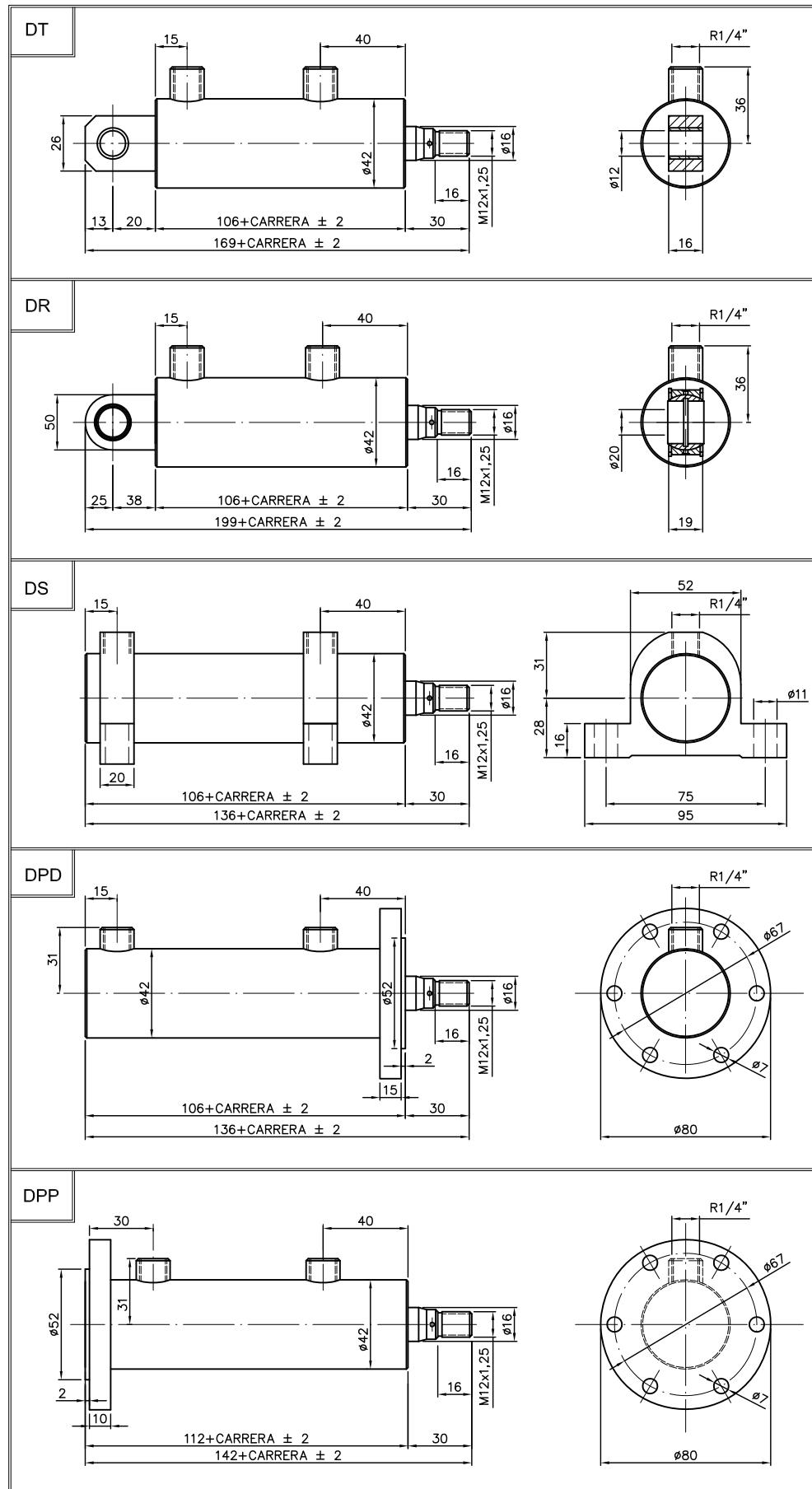
CILINDROS HIDRÁULICOS

CRV

FLUID EMPORDA S.L.

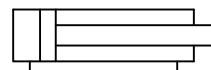
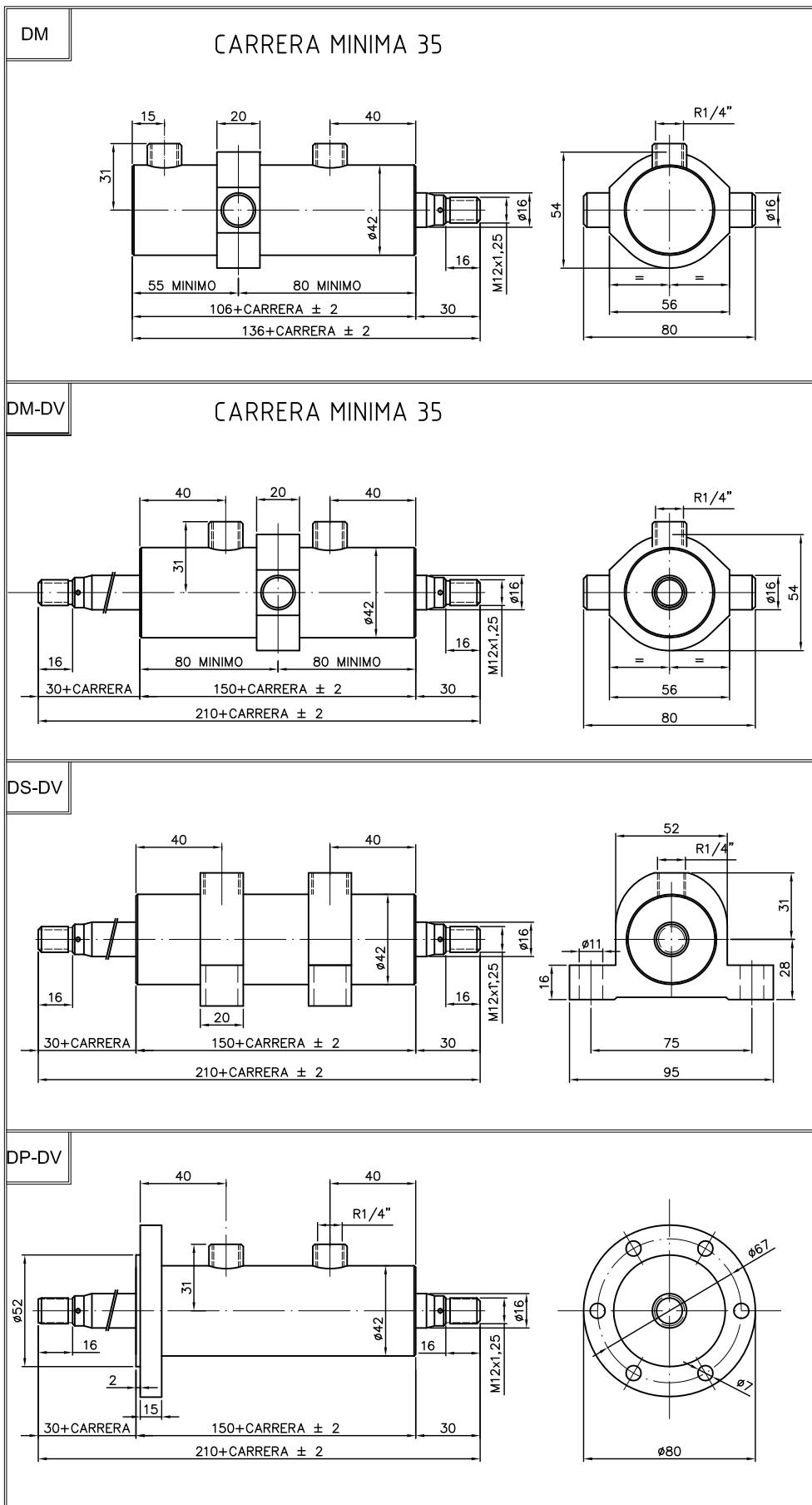
Tel. 972525053 - Fax. 972525458

POL. IND. PONT DEL PRINCEP C\ LLEVANT, 14
17469 VILAMALLA (GIRONA)



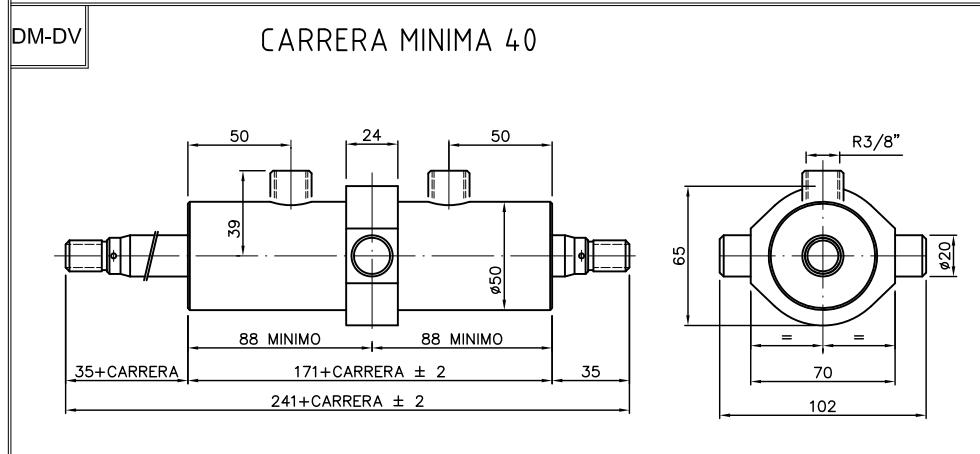
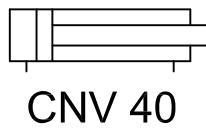
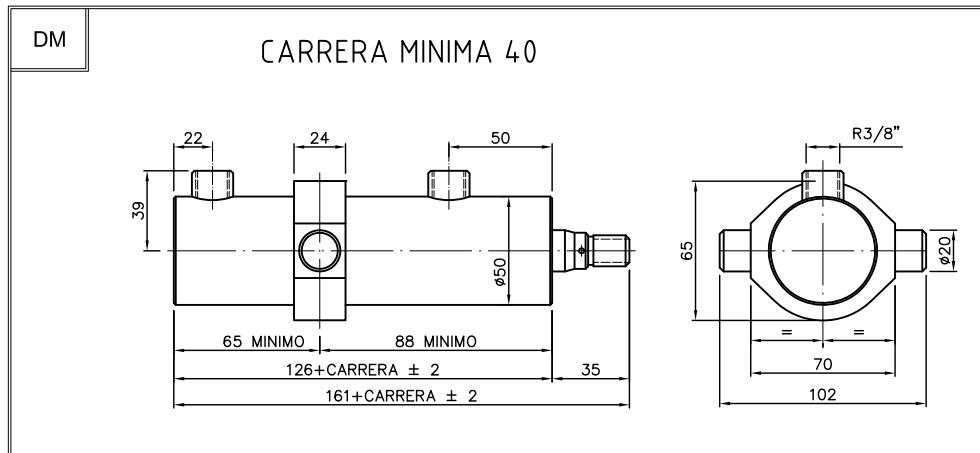
CNV 32

PRESION NOMINAL		PRESION MAXIMA			
PISTON	DIAMETRO	32	mm.		
SECCION		10	cm. ²		
VASTAGO	DIAMETRO	16	mm.		
SECCION		5	cm. ²		
SECCION ANULAR		5	cm. ²		
PRESION	50	100	150	210	Kg./cm. ²
EMPUJE PISTON	500	1000	1500	2100	Kg.
TRACCION VASTAGO	250	500	750	1050	

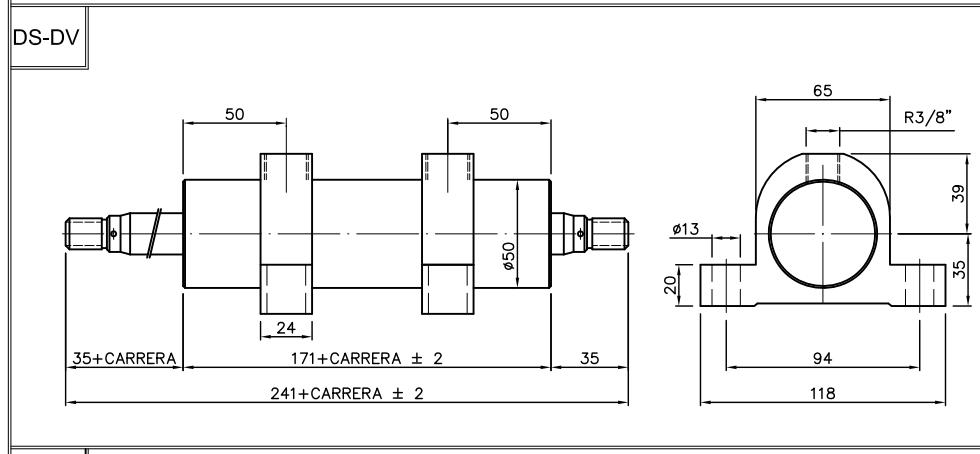


CNV 32

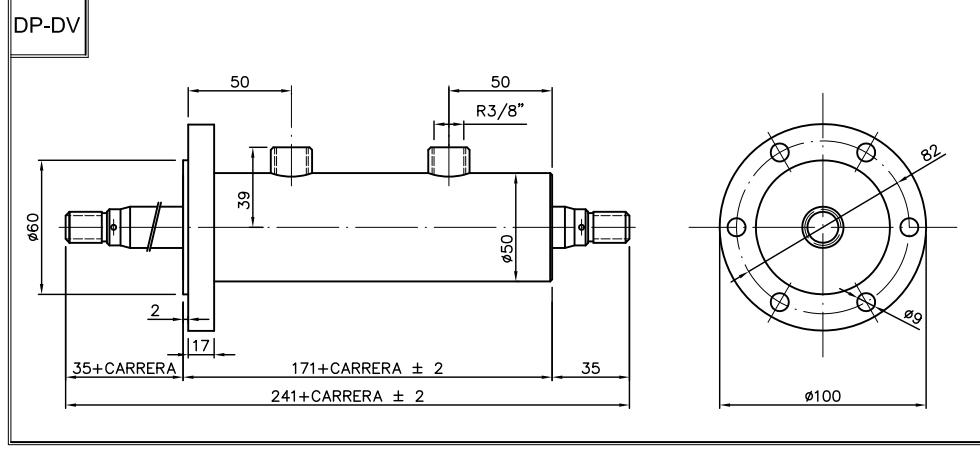
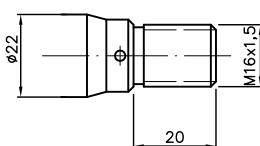
PRESION NOMINAL		PRESION MAXIMA	
	210 bar		280 bar
PISTON	DIAMETRO	32	mm.
	SECCION	10	cm. ²
VASTAGO	DIAMETRO	16	mm.
	SECCION	5	cm. ²
	SECCION ANULAR	5	
PRESION	50	100	150
EMPUJE PISTON	500	1000	1500
TRACCION VASTAGO	250	500	750
			Kg.
			Kg.



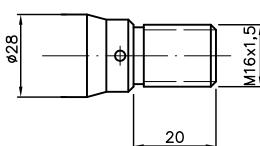
PRESION NOMINAL	210bar			
PRESION MAXIMA	280bar			
PISTON	DIAMETRO	40	mm.	
SECCION		12,6	cm. ²	
VASTAGO	DIAMETRO	22	28	mm.
SECCION		3,8	6,2	cm. ²
	SECCION ANULAR	8,8	6,4	
PRESION	50	100	150	210
EMPUJE PISTON	630	1260	1890	2646
TRACCION VASTAGO Ø22	440	880	1320	1848
TRACCION VASTAGO Ø28	320	640	960	1344

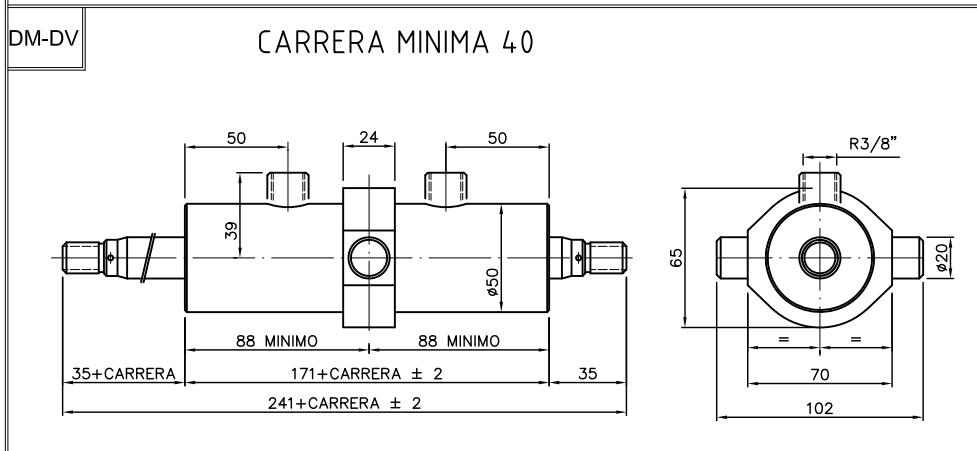
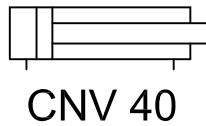
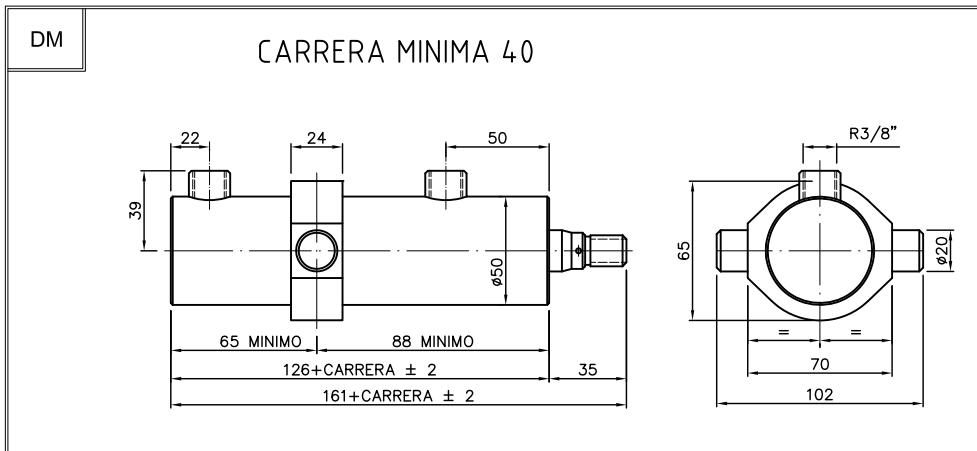


VASTAGO Ø 22

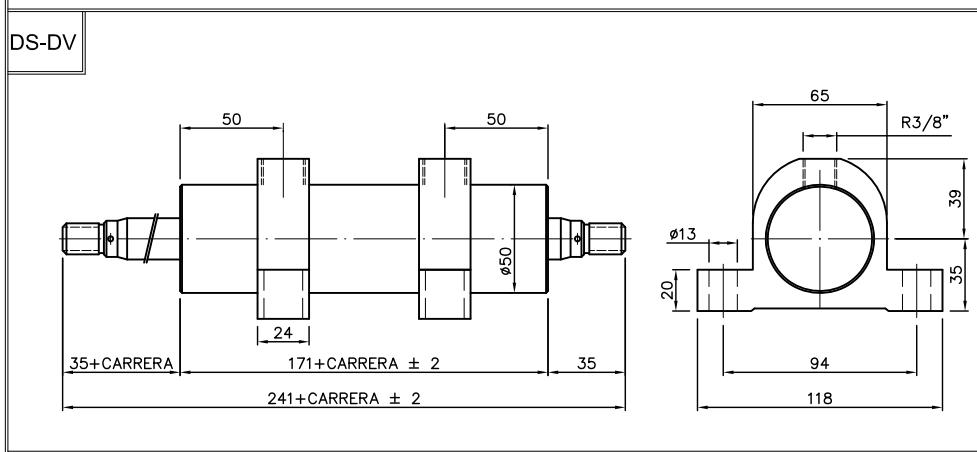


VASTAGO REFORZADO Ø 28

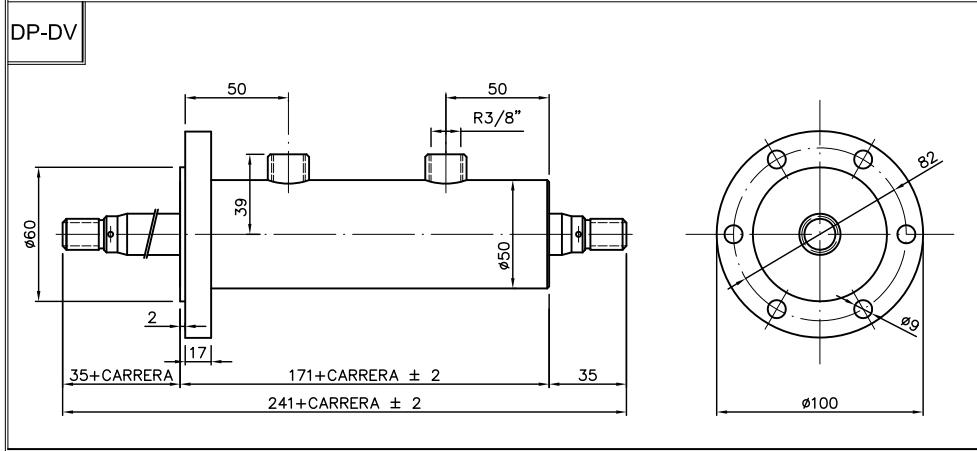
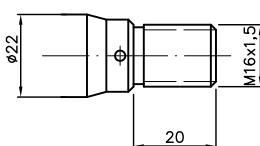




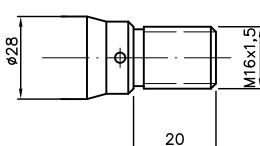
PRESION NOMINAL		210bar		
PRESION MAXIMA		280bar		
PISTON	DIAMETRO	40	mm.	
SECCION		12,6	cm. ²	
VASTAGO	DIAMETRO	22	28	mm.
SECCION		3,8	6,2	cm. ²
	SECCION ANULAR	8,8	6,4	
PRESION	50	100	150	210
EMPUJE PISTON	630	1260	1890	2646
TRACCION VASTAGO Ø22	440	880	1320	1848
TRACCION VASTAGO Ø28	320	640	960	1344



VASTAGO Ø 22

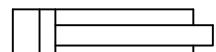
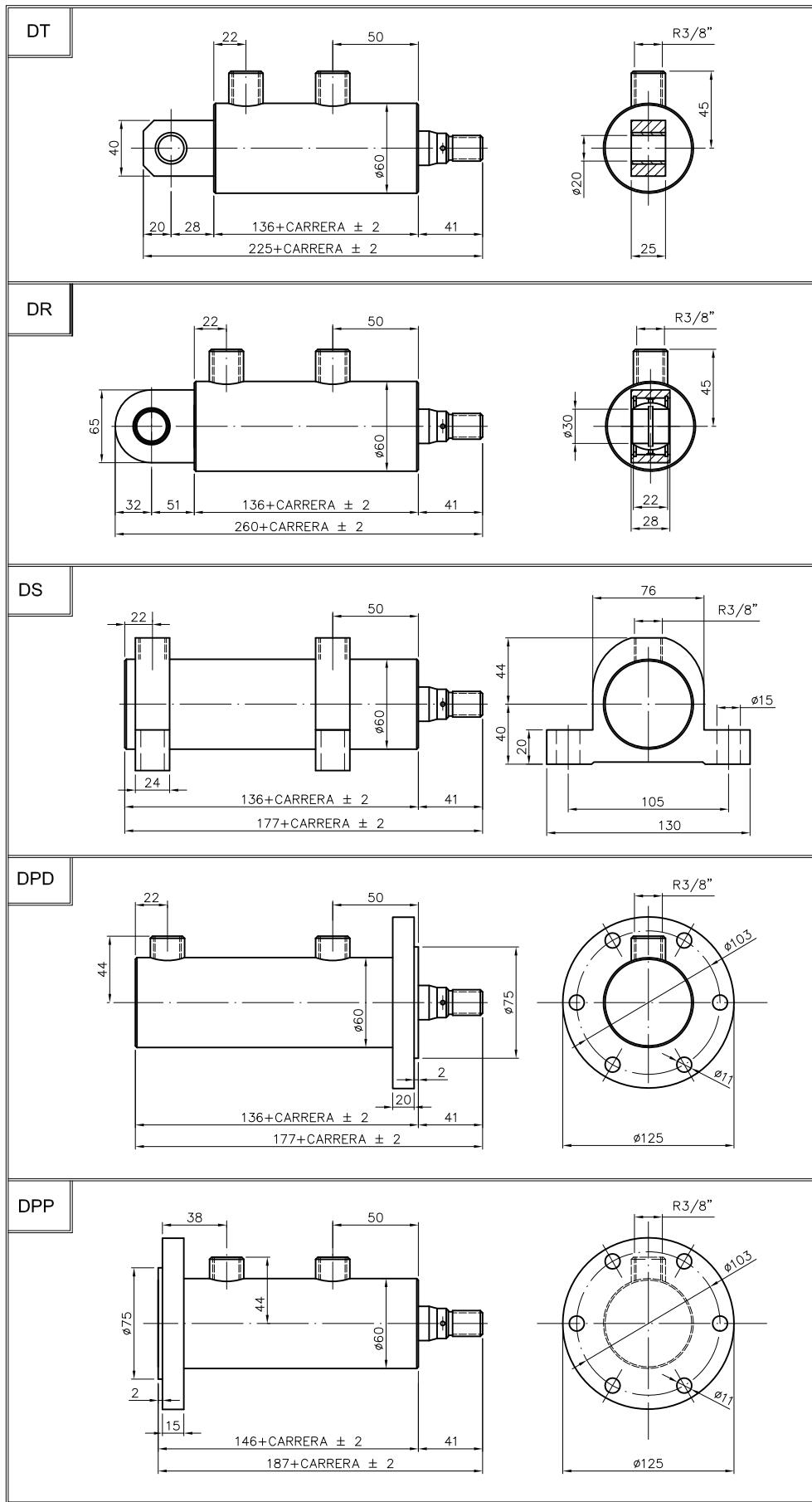


VASTAGO REFORZADO Ø 28



CILINDROS HIDRÁULICOS

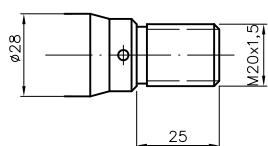
CRV



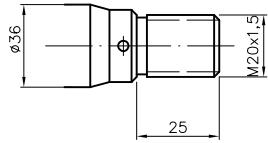
CNV 50

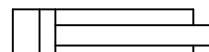
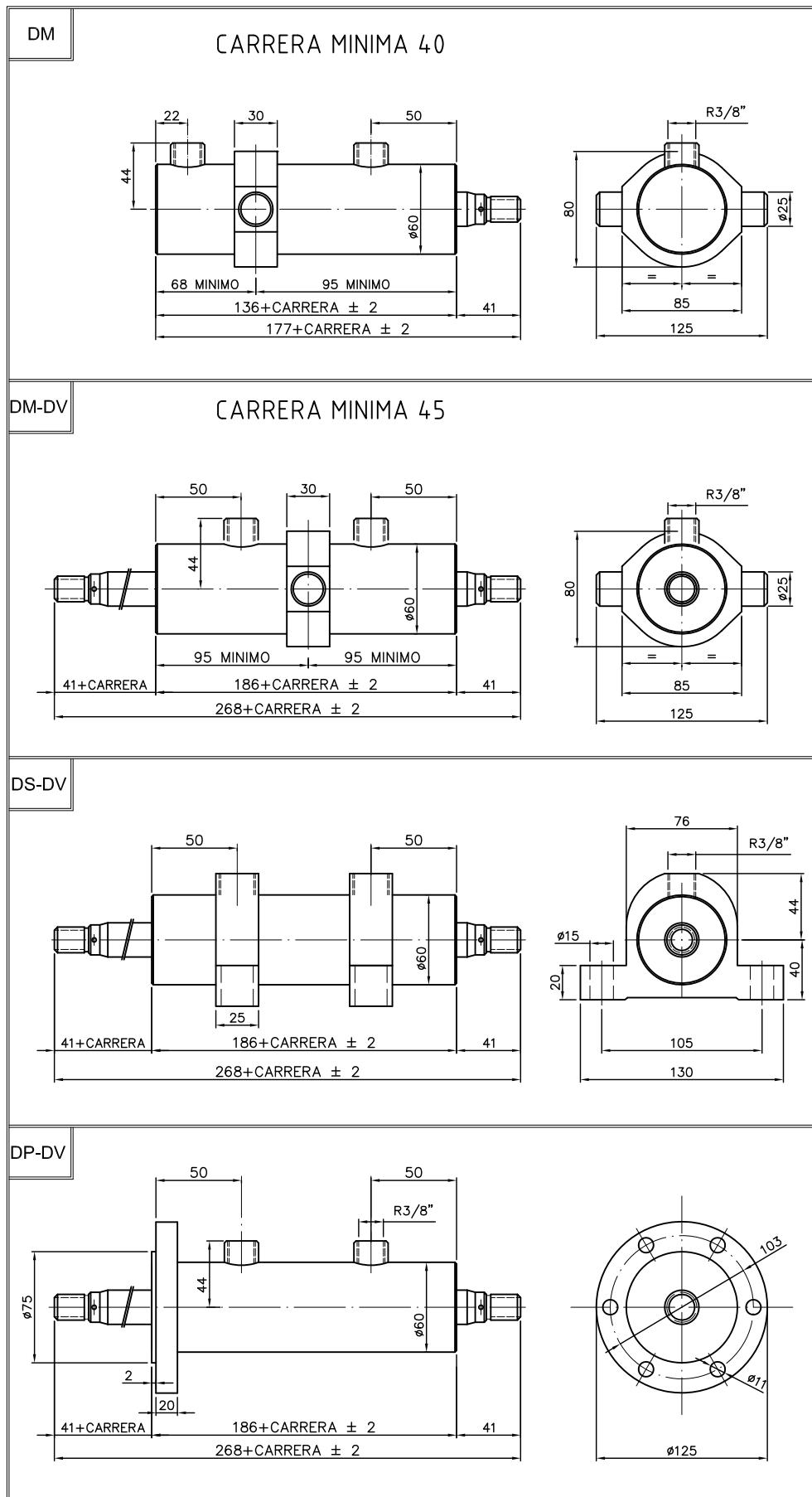
PRESION NOMINAL				210bar
PRESION MAXIMA				280bar
PISTON	DIAMETRO	50		mm.
SECCION		19,6		cm. ²
VASTAGO	DIAMETRO	28	36	mm.
SECCION		6,2	10,2	cm. ²
SECCION ANULAR		13,4	9,4	
PRESION	50	100	150	210
EMPUJE PISTON	980	1960	2940	4116
TRACCION VASTAGO Ø28	670	1340	2010	2814
TRACCION VASTAGO Ø36	470	940	1410	1974

VASTAGO Ø 28



VASTAGO REFORZADO Ø 36

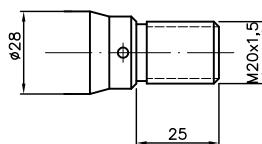




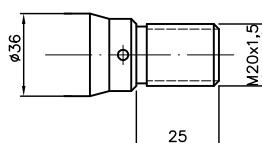
CNV 50

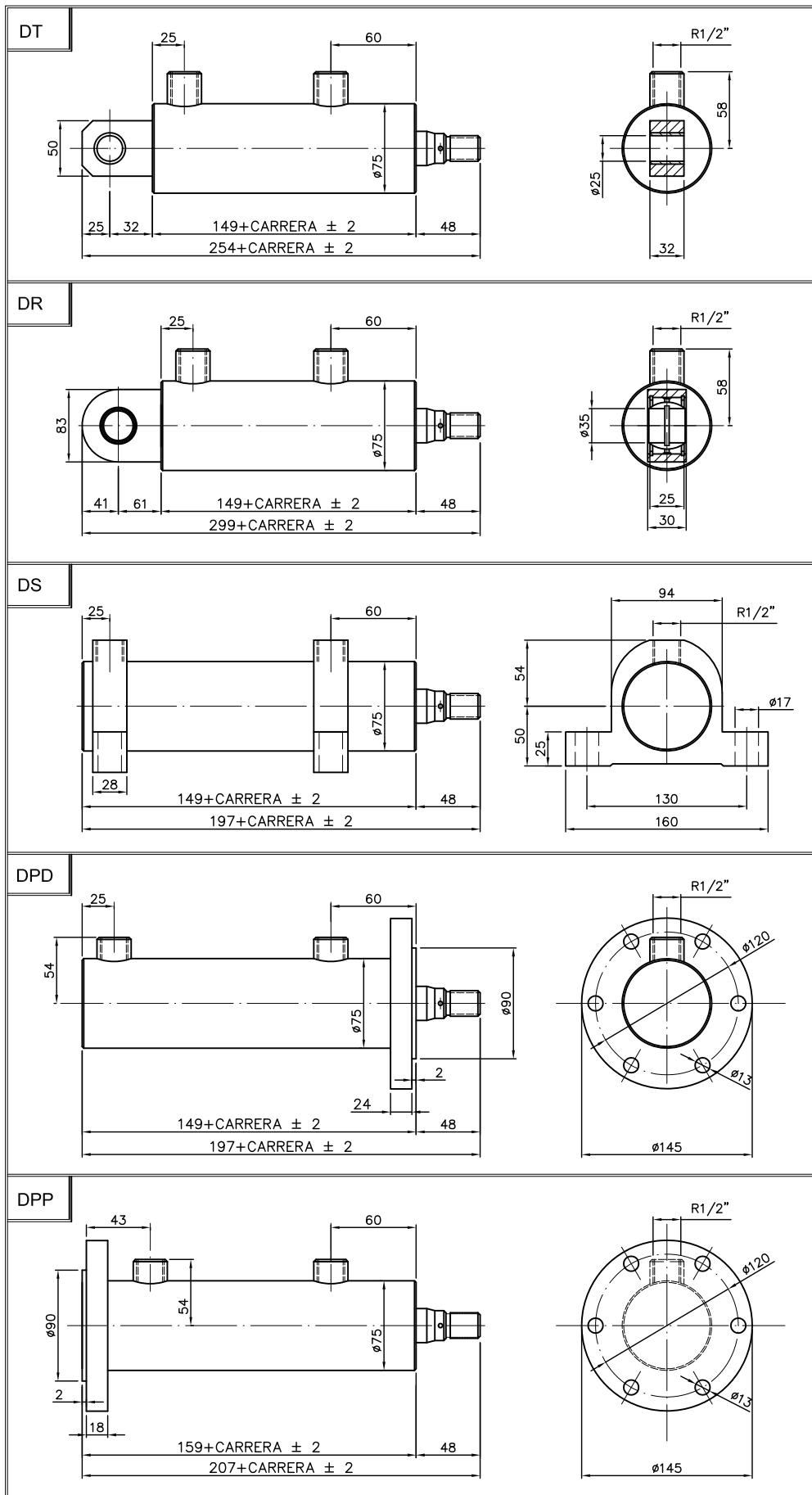
PRESION NOMINAL		210bar			
PRESION MAXIMA		280bar			
PISTON	DIAMETRO	50			mm.
	SECCION	19,6			cm. ²
VASTAGO	DIAMETRO	28	36	mm.	
	SECCION	6,2	10,2	cm. ²	
SECCION ANULAR		13,4			9,4
PRESION		50	100	150	210
EMPUJE PISTON		980	1960	2940	4116
TRACCION VASTAGO Ø28		670	1340	2010	2814
TRACCION VASTAGO Ø36		470	940	1410	1974

VASTAGO Ø 28



VASTAGO REFORZADO Ø 36

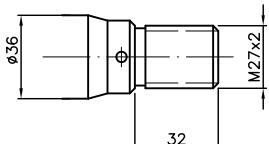




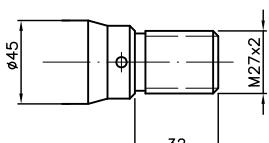
CNV 63

PRESION NOMINAL		210bar			
PRESION MAXIMA		280bar			
PISTON	DIAMETRO	63			mm.
SECCION		31,2			cm. ²
VASTAGO	DIAMETRO	36	45	45	mm.
SECCION		10,2	15,9	15,9	cm. ²
SECCION ANULAR		21	15,3	15,3	
PRESION	50	100	150	210	Kg./cm. ²
EMPUJE PISTON	1560	3120	4680	6552	
TRACCION VASTAGO Ø36	1050	2100	3150	4410	Kg.
TRACCION VASTAGO Ø45	765	1530	2295	3213	

VASTAGO Ø 36

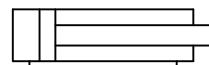
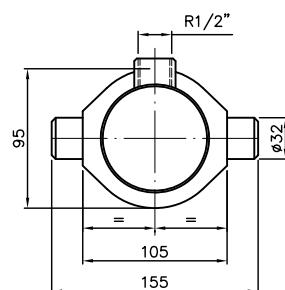
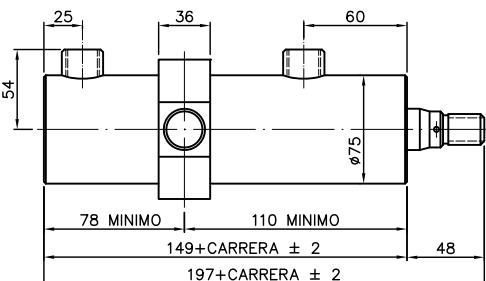


VASTAGO REFORZADO Ø 45



DM

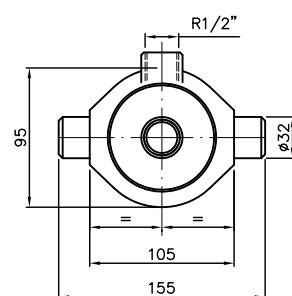
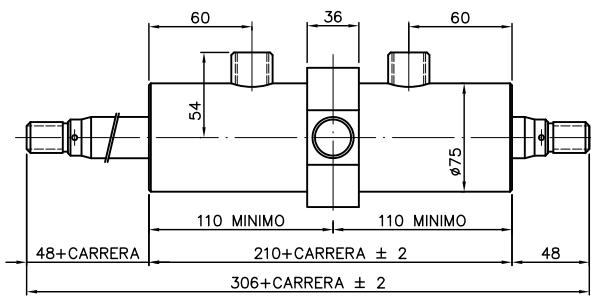
CARRERA MINIMA 45



CNV 63

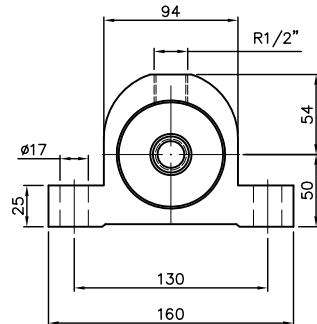
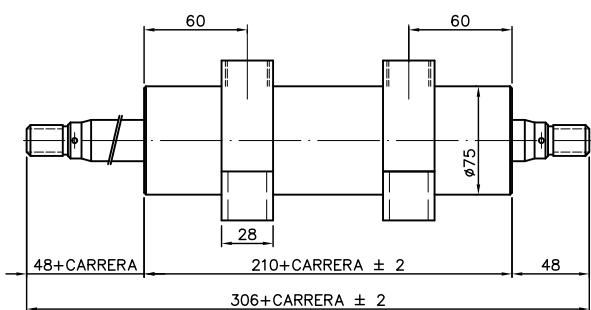
DM-DV

CARRERA MINIMA 45

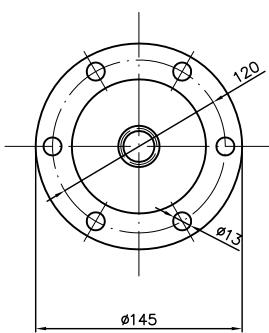
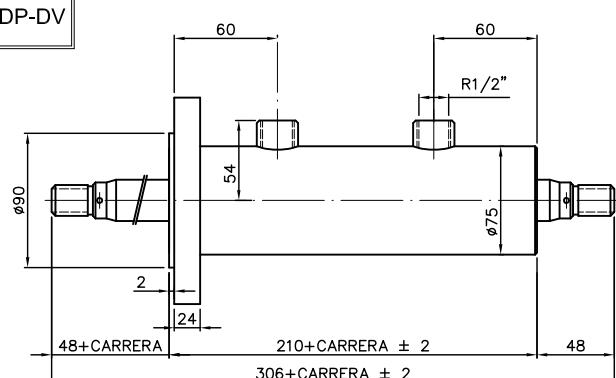


PRESION NOMINAL	210bar			
PRESION MAXIMA	280bar			
PISTON	DIAMETRO	63	mm.	
SECCION		31,2	cm. ²	
VASTAGO	DIAMETRO	36	45	mm.
SECCION		10,2	15,9	cm. ²
SECCION ANULAR		21	15,3	
PRESION	50	100	150	210
EMPUJE PISTON	1560	3120	4680	6552
TRACCION VASTAGO Ø36	1050	2100	3150	4410
TRACCION VASTAGO Ø45	765	1530	2295	3213

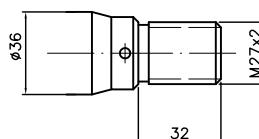
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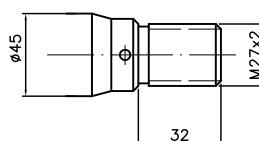
DP-DV

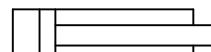
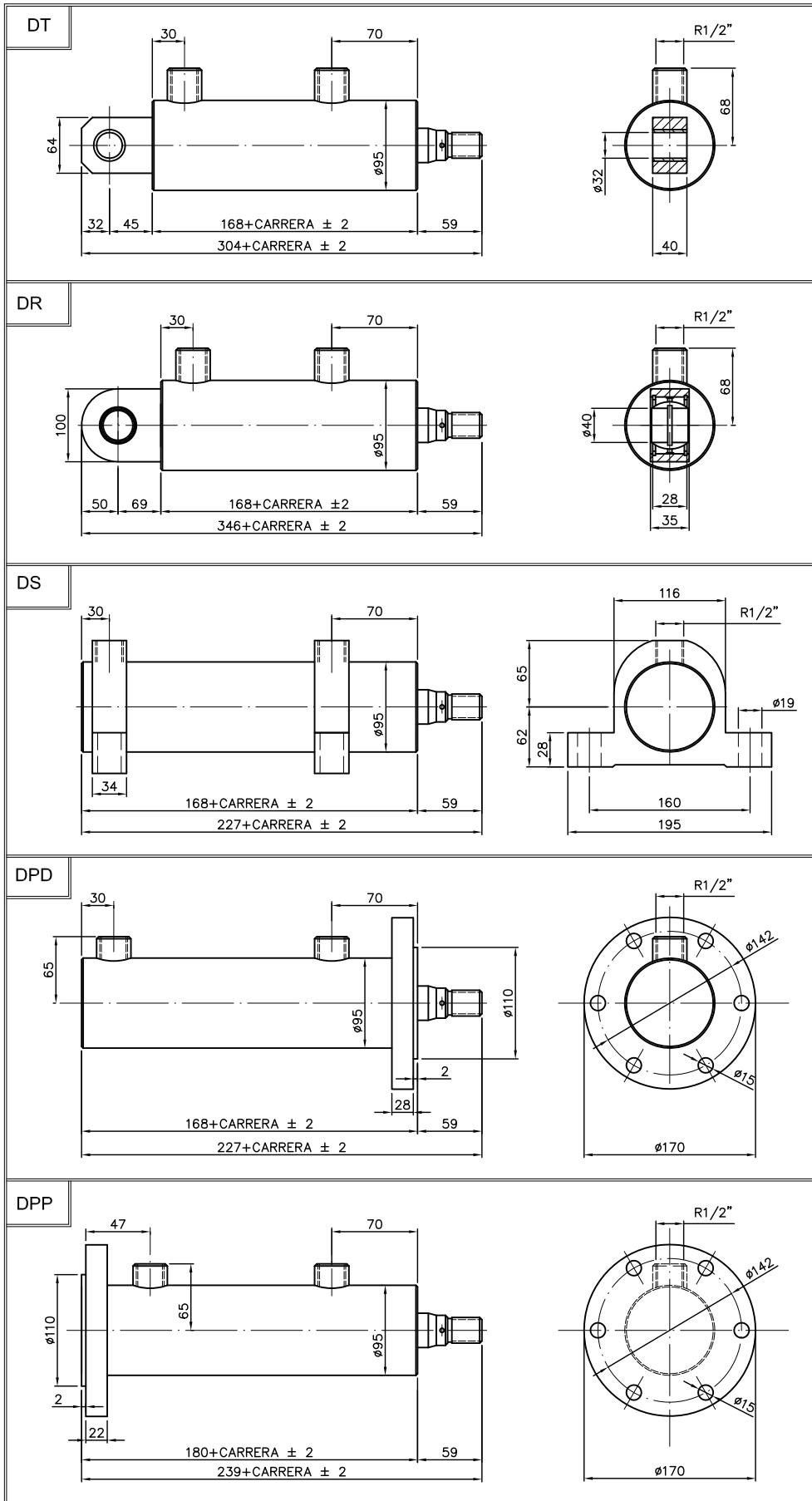


VASTAGO Ø 36



VASTAGO REFORZADO Ø 45

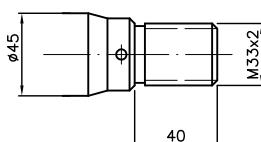




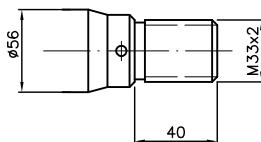
CNV 80

PRESION NOMINAL		210bar			
PRESION MAXIMA		280bar			
PISTON	DIAMETRO	80	mm.		
	SECCION	50,3	cm. ²		
VASTAGO	DIAMETRO	45	mm.	56	
	SECCION	15,9	cm. ²	24,6	
	SECCION ANULAR	34,4	cm. ²	25,7	
PRESION	50	100	150	210	Kg./cm. ²
EMPUJE PISTON	2515	5030	7545	10563	
TRACCION VASTAGO Ø45	1720	3440	5160	7224	Kg.
TRACCION VASTAGO Ø56	1285	2570	3855	5397	

VASTAGO Ø 45

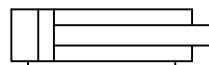
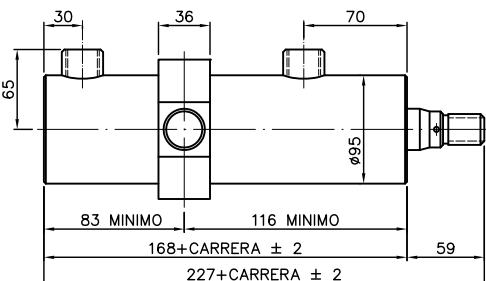


VASTAGO REFORZADO Ø 56



DM

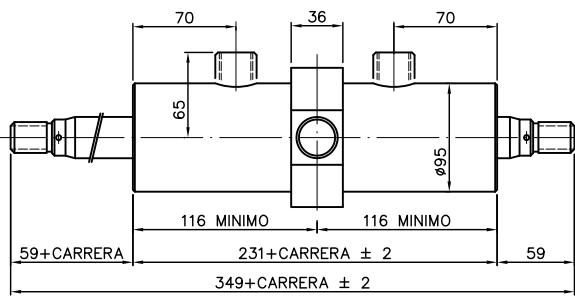
CARRERA MINIMA 50



CNV 80

DM-DV

CARRERA MINIMA 50



PRESION NOMINAL 210bar

PRESION MAXIMA 280bar

PISTON	DIAMETRO	80	mm.
	SECCION	50,3	cm. ²
VASTAGO	DIAMETRO	45	mm.
	SECCION	15,9	24,6
VASTAGO	SECCION ANULAR	34,4	25,7
			cm. ²

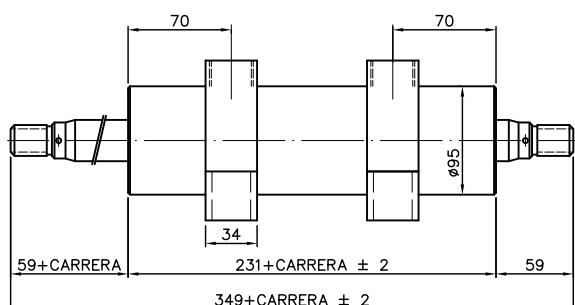
PRESION 50 100 150 210 Kg./cm.²

EMPUJE PISTON 2515 5030 7545 10563

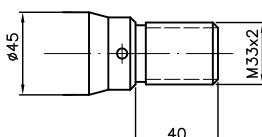
TRACCION VASTAGO Ø45 1720 3440 5160 7224 Kg.

TRACCION VASTAGO Ø56 1285 2570 3855 5397

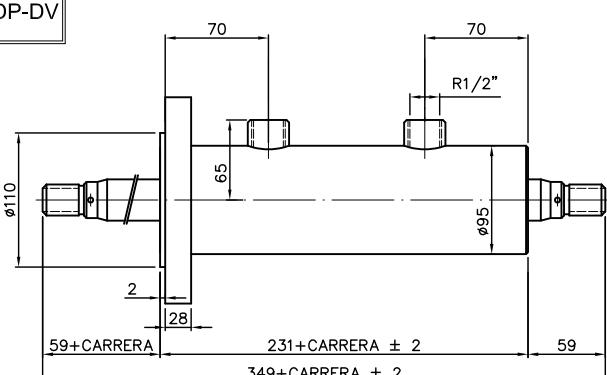
DS-DV



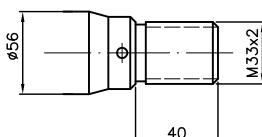
VASTAGO Ø 45

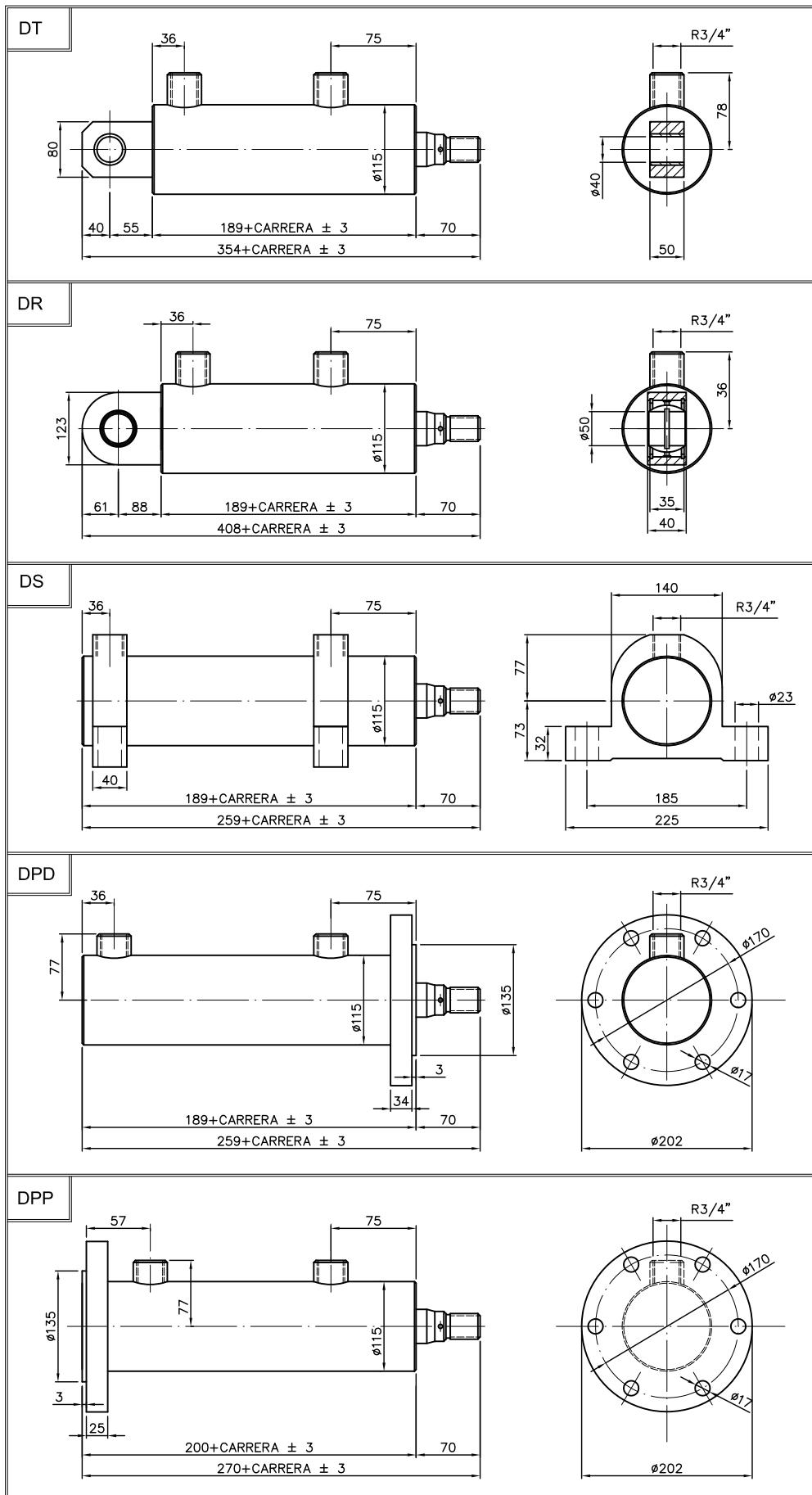


DP-DV



VASTAGO REFORZADO Ø 56

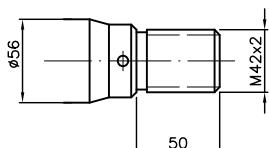




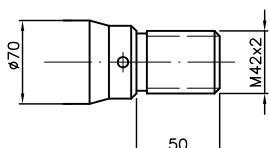
CNV 100

PRESION NOMINAL		210bar			
PRESION MAXIMA		280bar			
PISTON	DIAMETRO	100		mm.	
SECCION	78,5		cm. ²		
VASTAGO	DIAMETRO	56	70	mm.	
SECCION	24,6		38,5		cm. ²
SECCION ANULAR	53,9		40		
PRESION	50	100	150	210	Kg./cm. ²
EMPUJE PISTON	3925	7850	11775	16485	
TRACCION VASTAGO Ø56	2695	5390	8085	11319	Kg.
TRACCION VASTAGO Ø70	2000	4000	6000	8400	

VASTAGO Ø 56

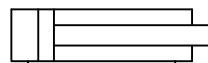
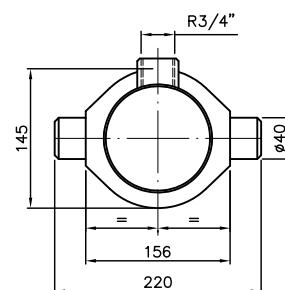
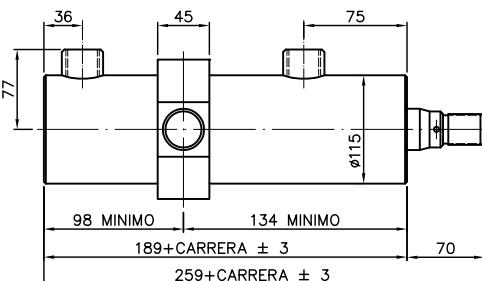


VASTAGO REFORZADO Ø 70



DM

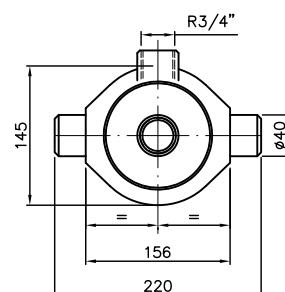
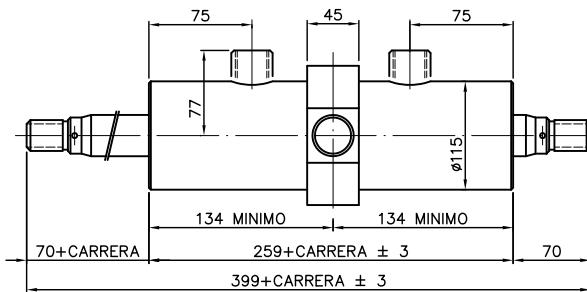
CARRERA MINIMA 65



CNV 100

DM-DV

CARRERA MINIMA 65



PRESION NOMINAL 210bar

PRESION MAXIMA 280bar

PISTON	DIAMETRO	100	mm.
	SECCION	78,5	cm. ²
VASTAGO	DIAMETRO	56	mm.
	SECCION	24,6	cm. ²
	SECCION ANULAR	53,9	40
			mm.

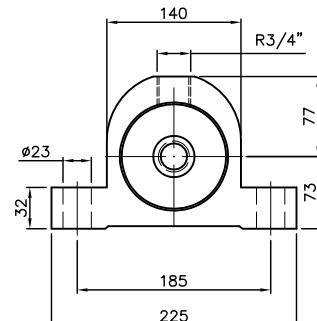
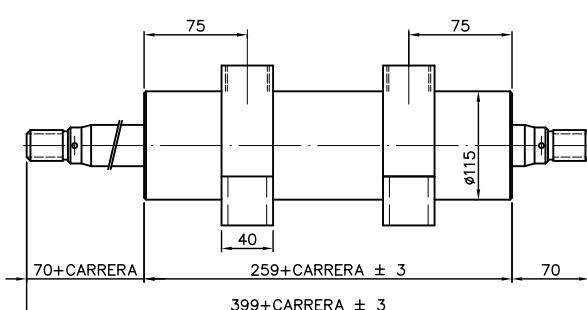
PRESION 50 100 150 210 Kg./cm.²

EMPUJE PISTON 3925 7850 11775 16485

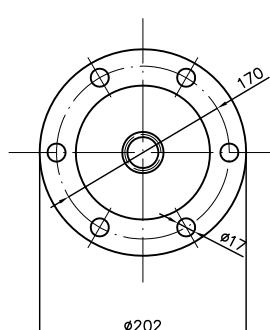
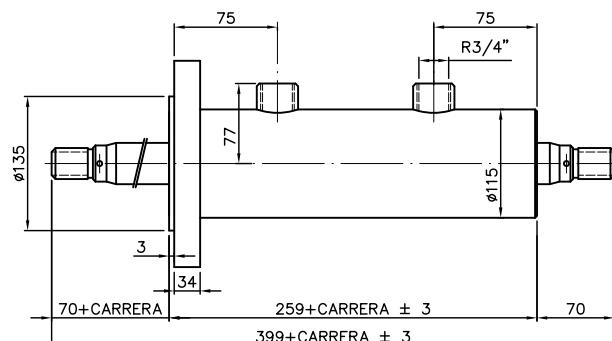
TRACCION VASTAGO Ø56 2695 5390 8085 11319 Kg.

TRACCION VASTAGO Ø70 2000 4000 6000 8400

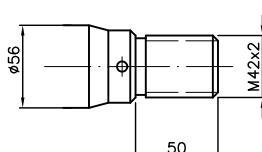
DS-DV



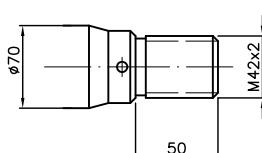
DP-DV

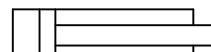
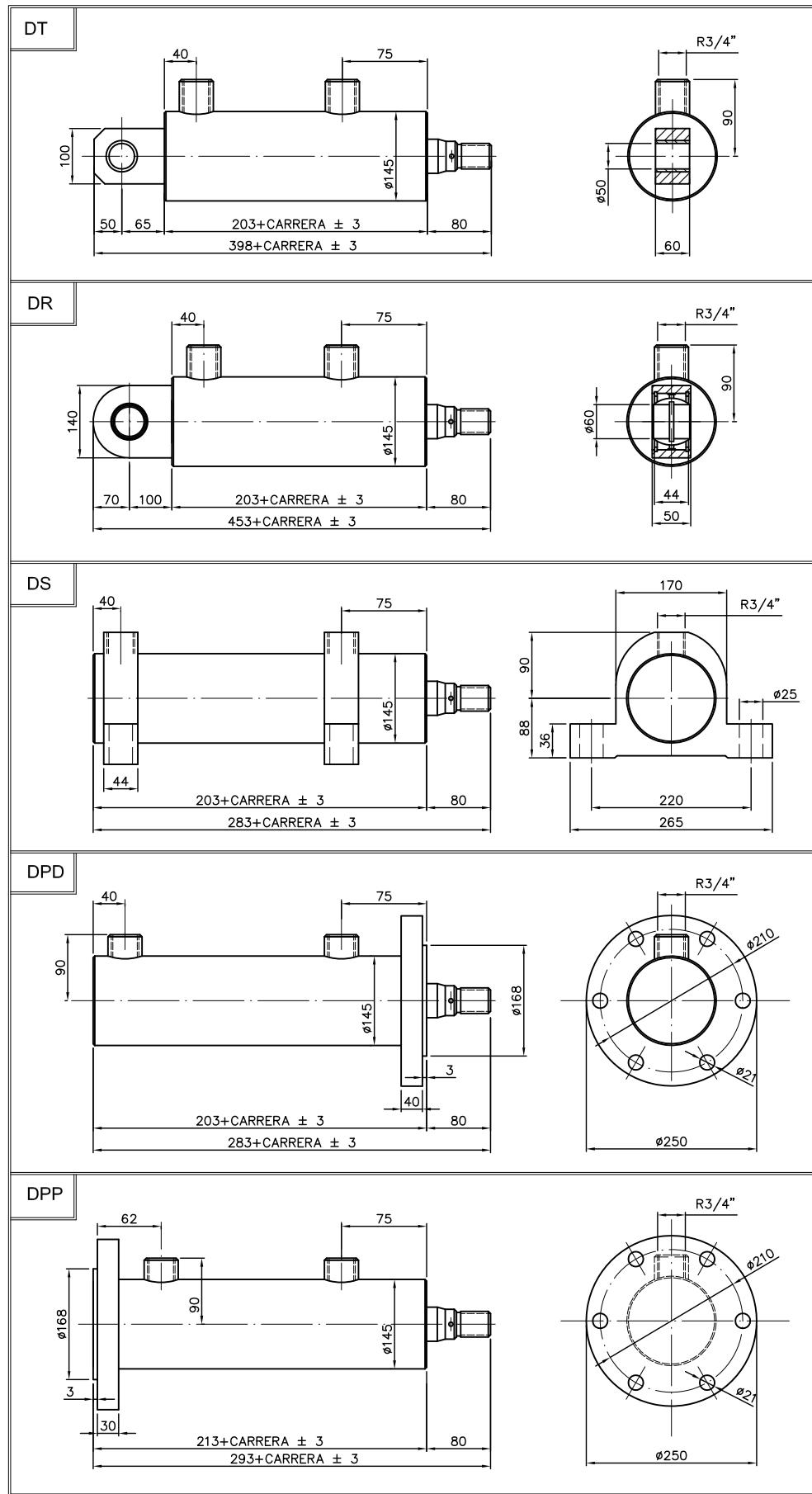


VASTAGO Ø 56



VASTAGO REFORZADO Ø 70

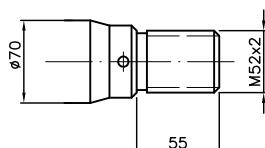




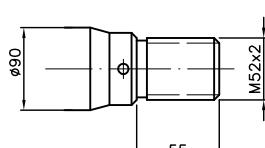
CNV 125

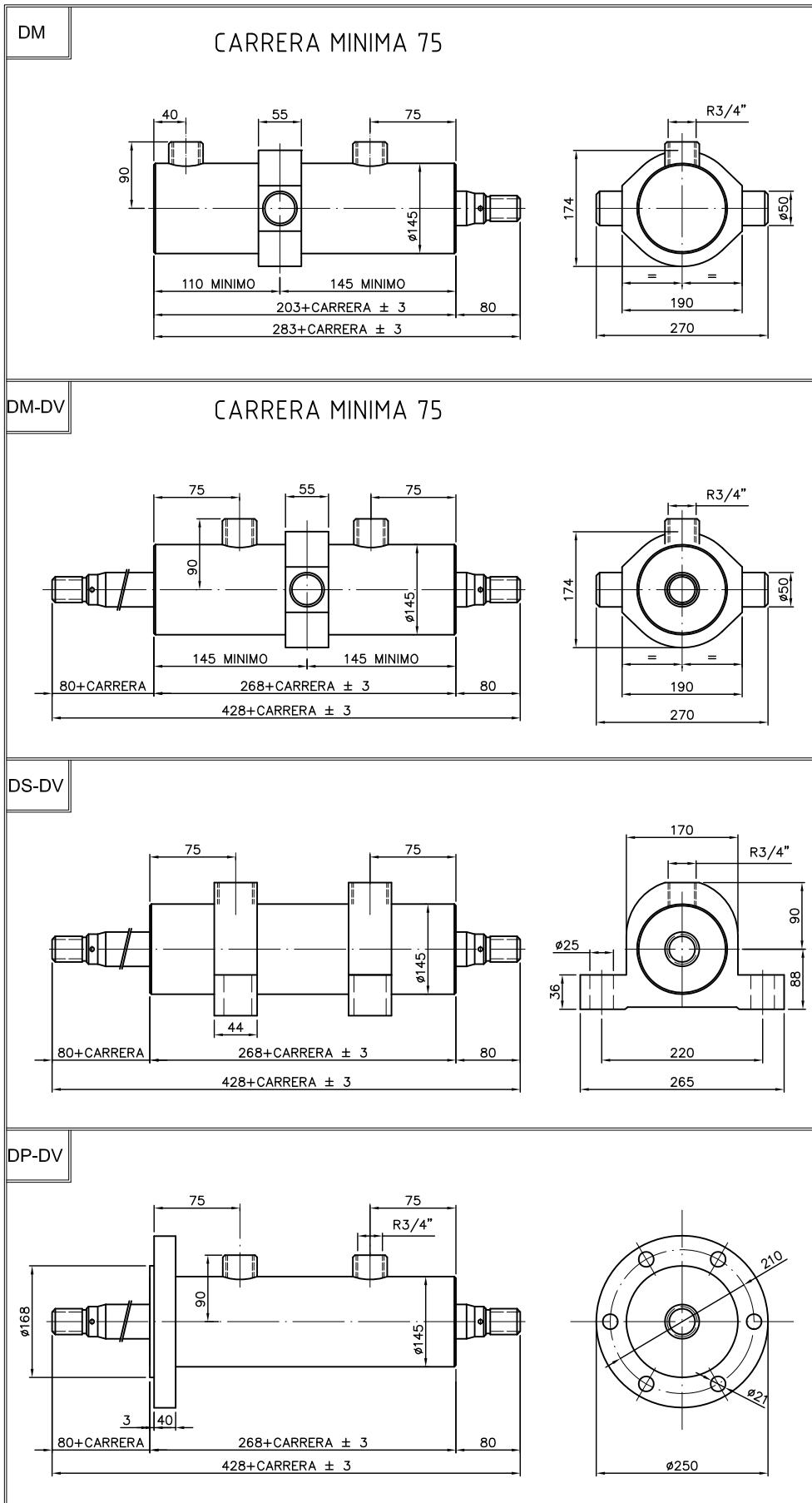
PRESION NOMINAL		210bar			
PRESION MAXIMA		280bar			
PISTON	DIAMETRO	125	mm.		
SECCION		122,7	cm. ²		
VASTAGO	DIAMETRO	70	mm.		
SECCION		38,5	63,6		
	SECCION ANULAR	84,2	59,1		
PRESION	50	100	150	210	Kg./cm. ²
EMPUJE PISTON	6135	12270	18405	25767	
TRACCION VASTAGO Ø70	4210	8420	12630	17682	Kg.
TRACCION VASTAGO Ø90	2955	5910	8865	12411	

VASTAGO Ø 70

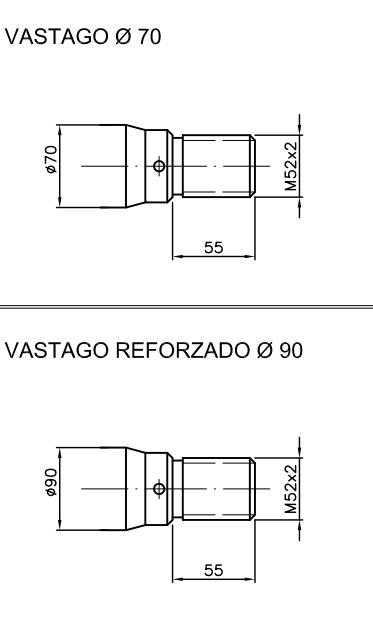


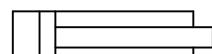
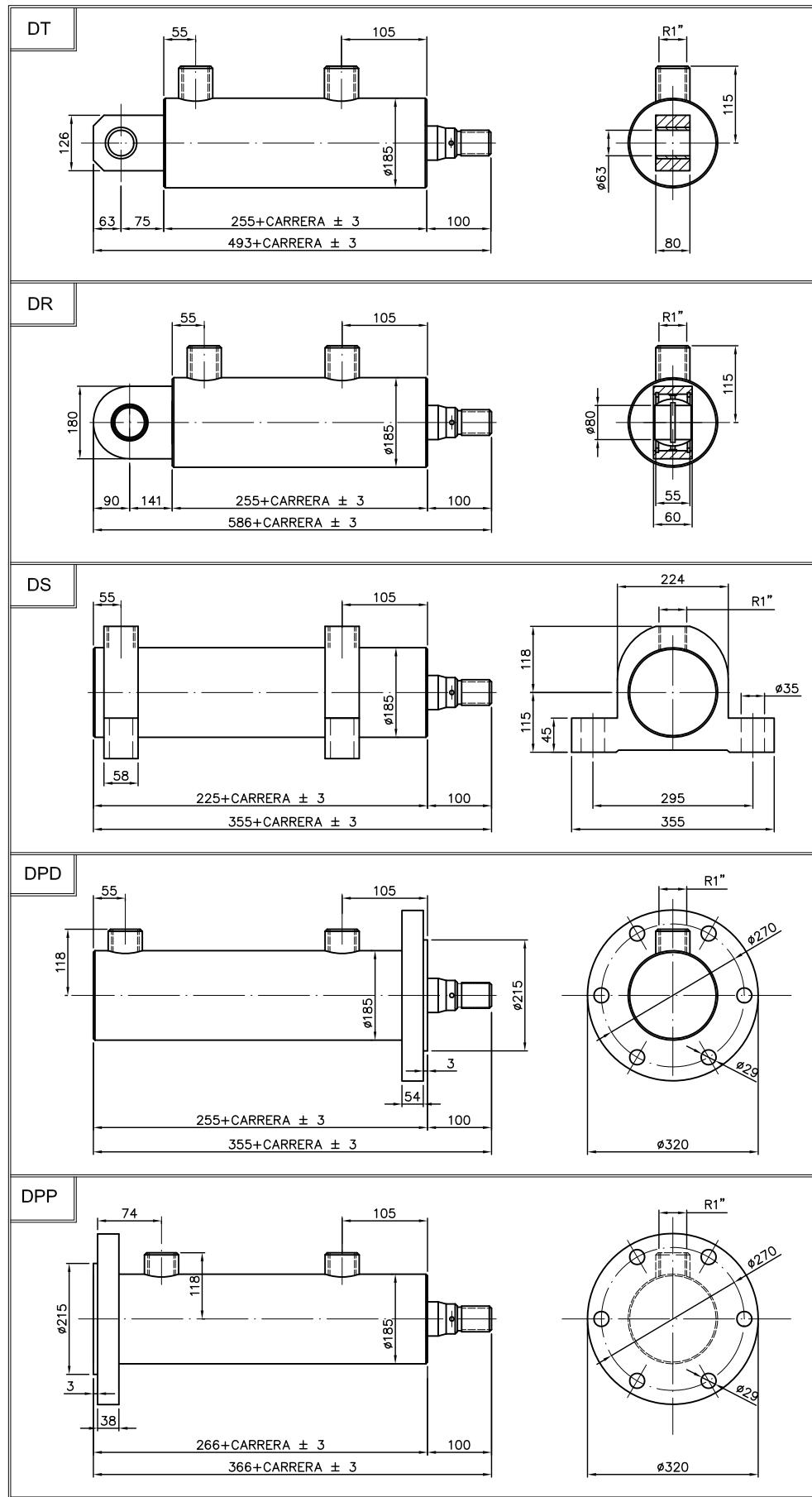
VASTAGO REFORZADO Ø 90





PRESION NOMINAL		210bar			
PRESION MAXIMA		280bar			
PISTON	DIAMETRO	125			mm.
	SECCION	122,7			cm. ²
VASTAGO	DIAMETRO	70	90		mm.
	SECCION	38,5	63,6		cm. ²
	SECCION ANULAR	84,2	59,1		
PRESION	50	100	150	210	Kg./cm. ²
EMPUJE PISTON	6135	12270	18405	25767	
TRACCION VASTAGO Ø70	4210	8420	12630	17682	Kg.
TRACCION VASTAGO Ø90	2955	5910	8865	12411	

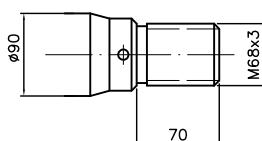




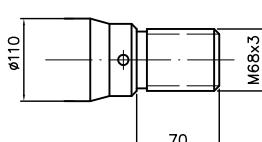
CNV 160

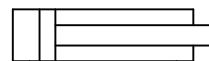
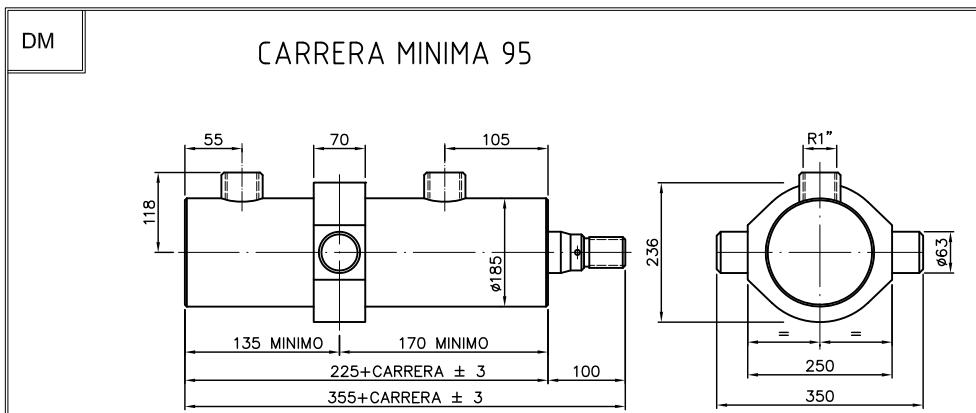
PRESION NOMINAL		210bar			
PRESION MAXIMA		280bar			
FISTON	DIAMETRO	160		mm.	
SECCION		201		cm. ²	
VASTAGO	DIAMETRO	90	110	mm.	
SECCION		63,6	95	cm. ²	
SECCION ANULAR		137,4	106		
PRESION	50	100	150	210	Kg./cm. ²
EMPUJE PISTON	10050	20100	30150	42210	
TRACCION VASTAGO Ø90	6870	13740	20610	28854	Kg.
TRACCION VASTAGO Ø110	5300	10600	15900	22260	

VASTAGO Ø 90

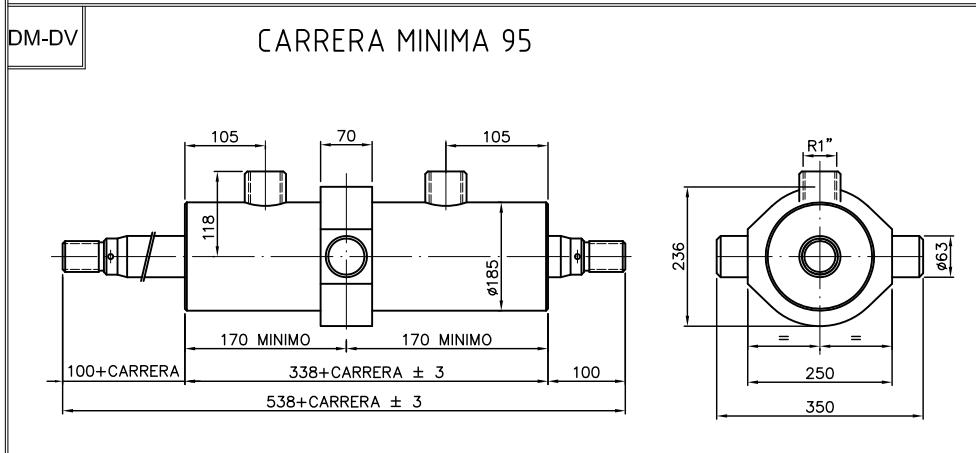


VASTAGO REFORZADO Ø 110

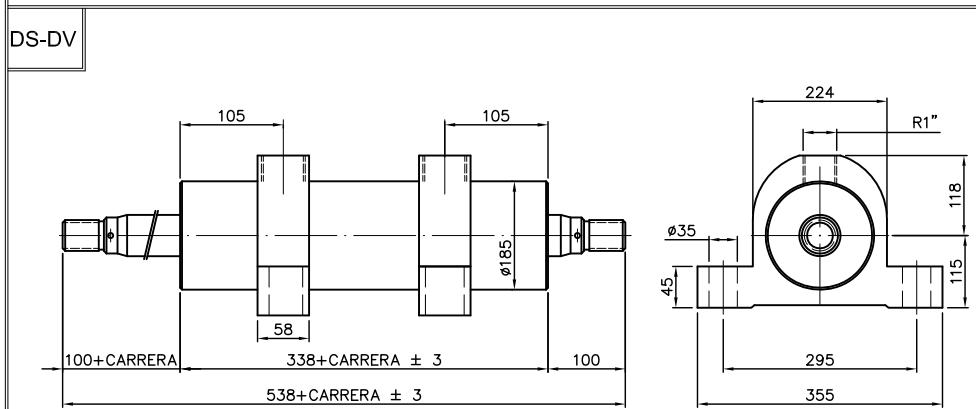




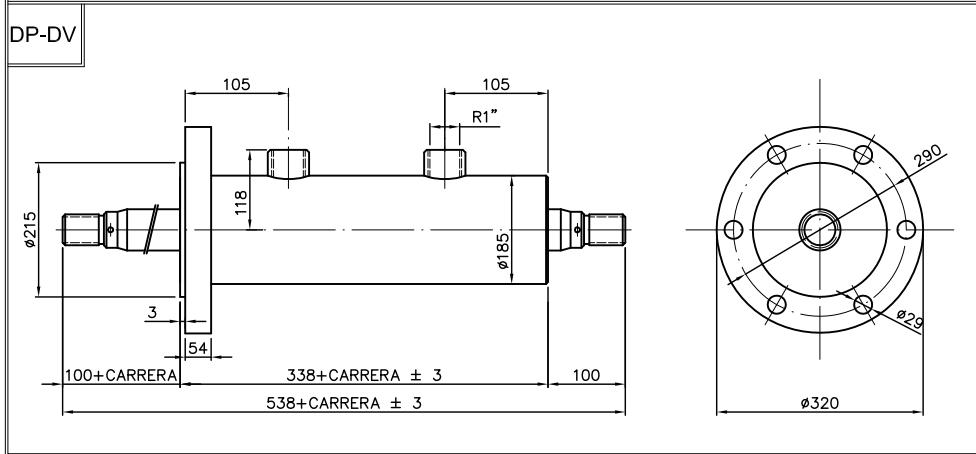
CNV 160



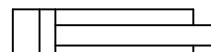
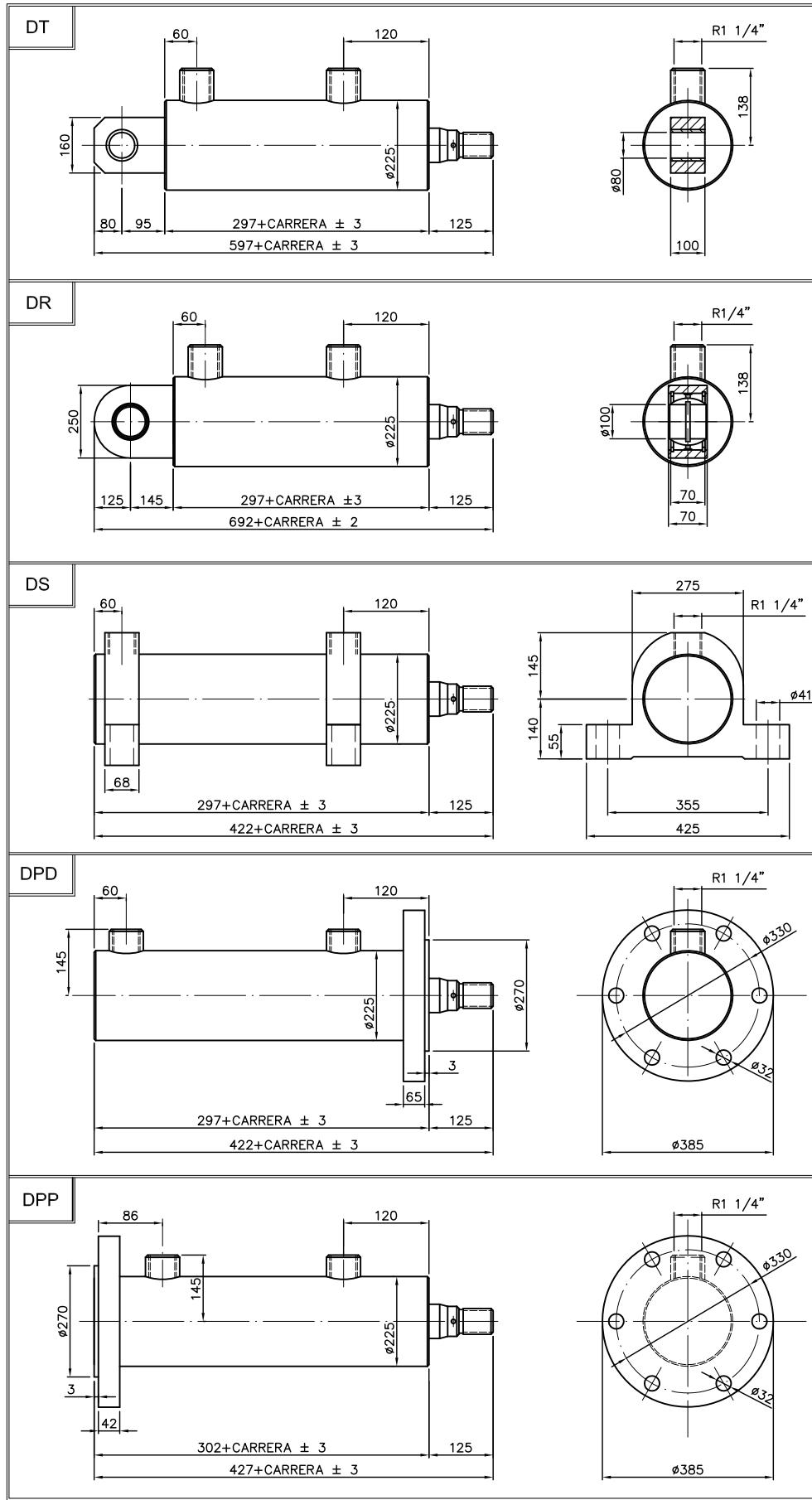
PRESION NOMINAL		210bar			
PRESION MAXIMA		280bar			
PISTON	DIAMETRO	160			mm.
SECCION	201			cm. ²	
VASTAGO	DIAMETRO	90	110	mm.	
SECCION	63,6			95	cm. ²
SECCION ANULAR	137,4			106	
PRESION	50	100	150	210	Kg./cm. ²
EMPUJE PISTON	10050	20100	30150	42210	
TRACCION VASTAGO Ø90	6870	13740	20610	28854	Kg.
TRACCION VASTAGO Ø110	5300	10600	15900	22260	



VASTAGO Ø 90				
Ø90	70	M68x3		



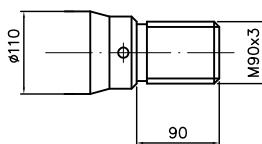
VASTAGO REFORZADO Ø 110				
Ø110	70	M68x3		



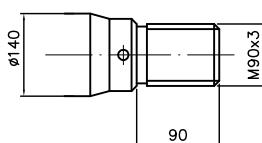
CNV 200

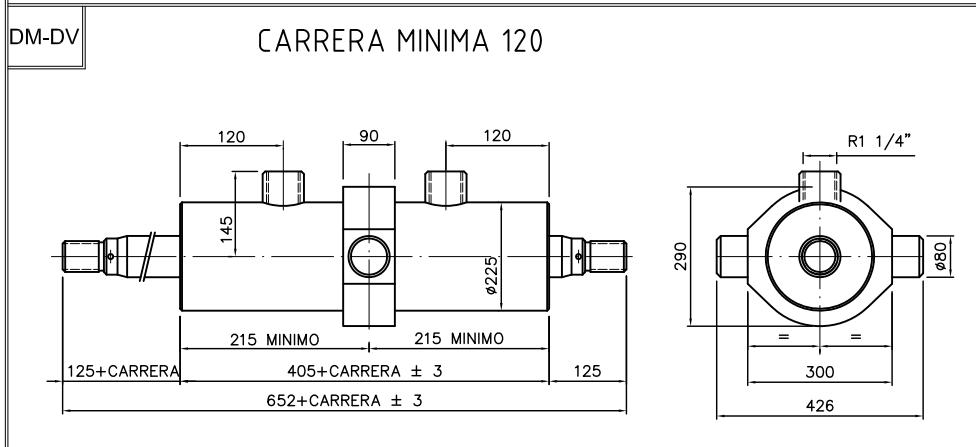
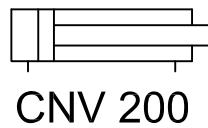
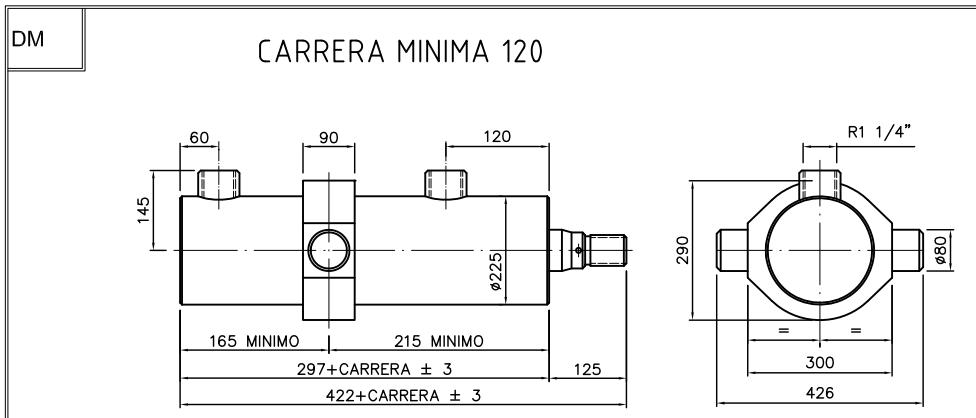
PRESION NOMINAL		210bar	
PRESION MAXIMA		280bar	
PISTON	DIAMETRO	200	mm.
SECCION		314,1	cm. ²
VASTAGO	DIAMETRO	110	mm.
SECCION		95	153,9
	SECCION ANULAR	219,1	160,2
PRESION	50	100	150
		210	Kg./cm. ²
EMPUJE PISTON	15705	31410	47115
TRACCION VASTAGO Ø110	10955	21910	32865
TRACCION VASTAGO Ø140	8010	16020	24030
			65961
			46011
			Kg.

VASTAGO Ø 110

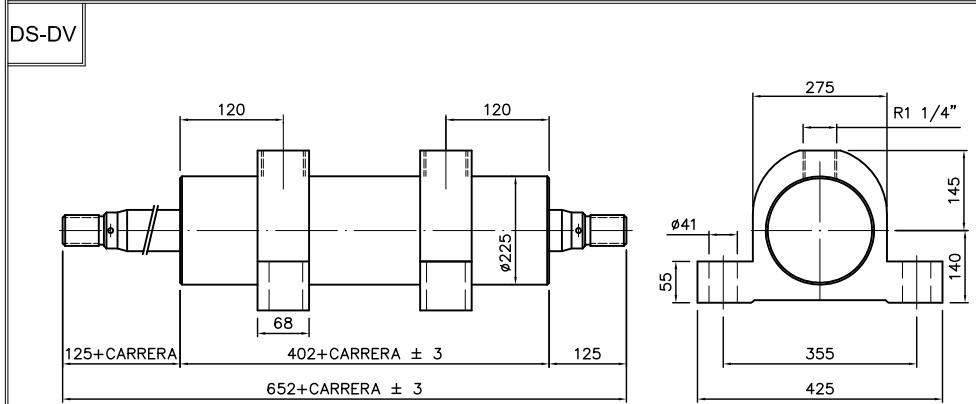


VASTAGO REFORZADO Ø 140

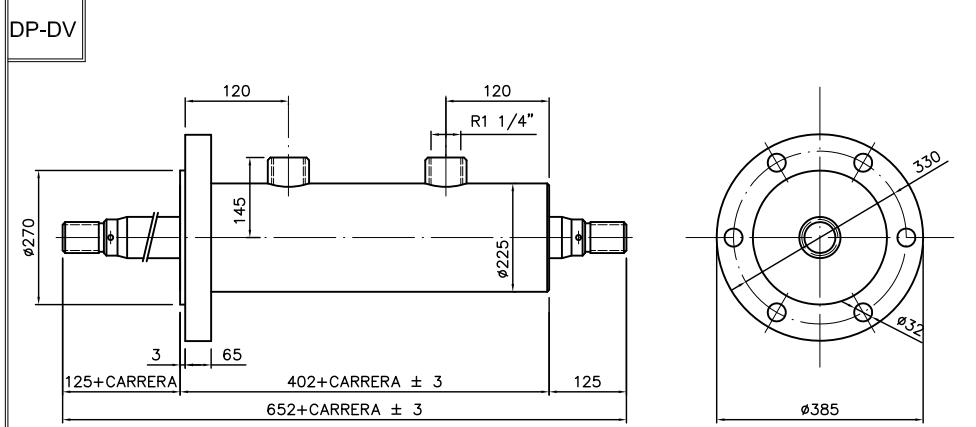
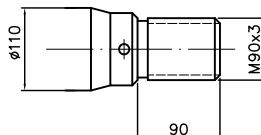




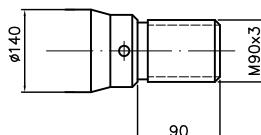
PRESION NOMINAL	210bar			
PRESION MAXIMA	280bar			
PISTON	DIAMETRO	200	mm.	
	SECCION	314,1	cm. ²	
VASTAGO	DIAMETRO	110	140	mm.
	SECCION	95	153,9	cm. ²
	SECCION ANULAR	219,1	160,2	
PRESION	50	100	150	210 Kg./cm. ²
EMPUJE PISTON	15705	31410	47115	65961 Kg.
TRACCION VASTAGO Ø110	10955	21910	32865	46011
TRACCION VASTAGO Ø140	8010	16020	24030	33642

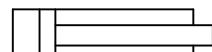
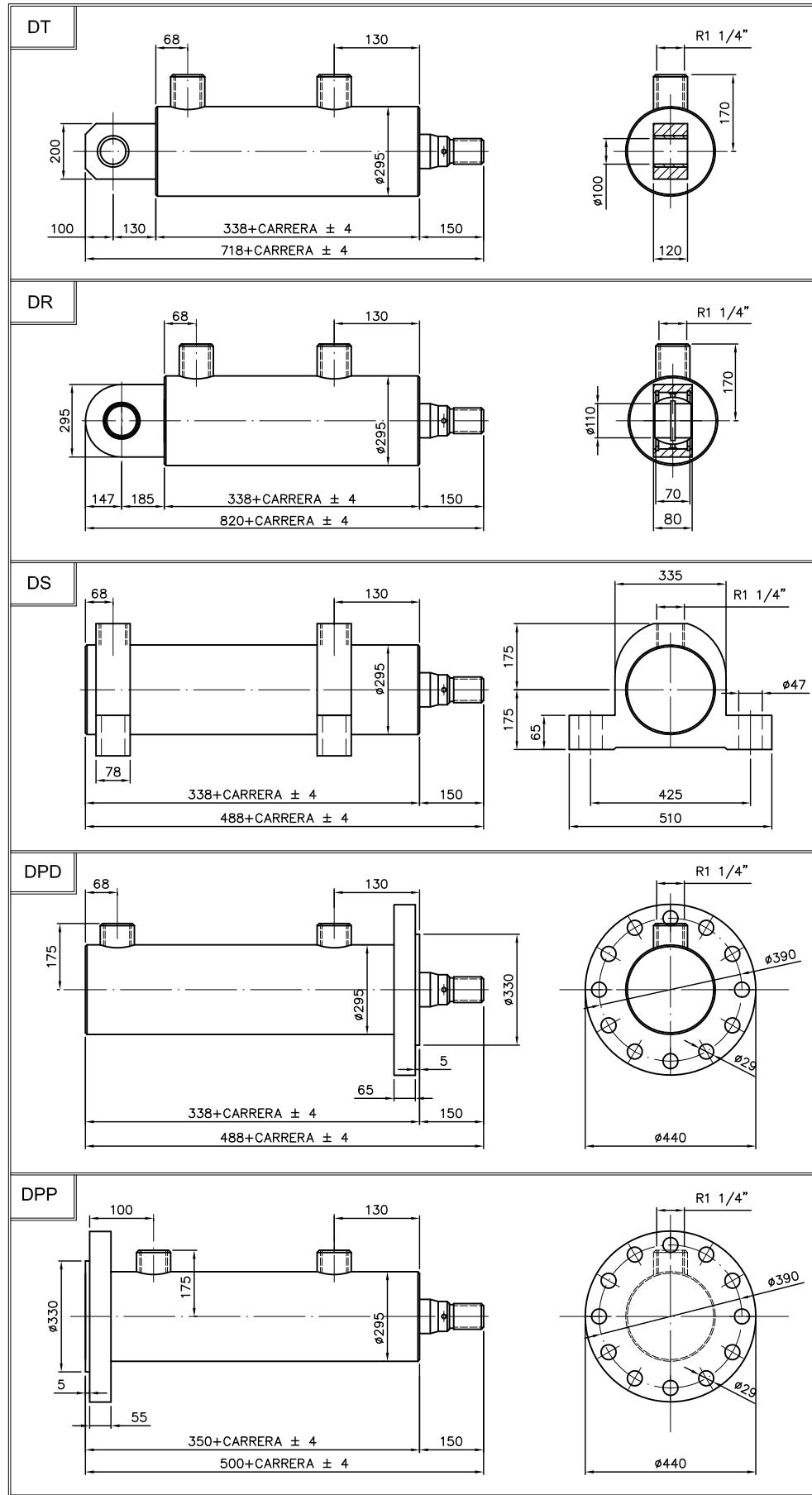


VASTAGO Ø 110



VASTAGO REFORZADO Ø 140

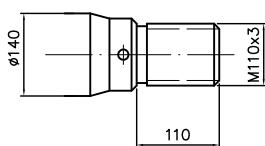




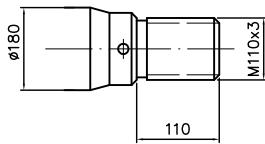
CNV 250

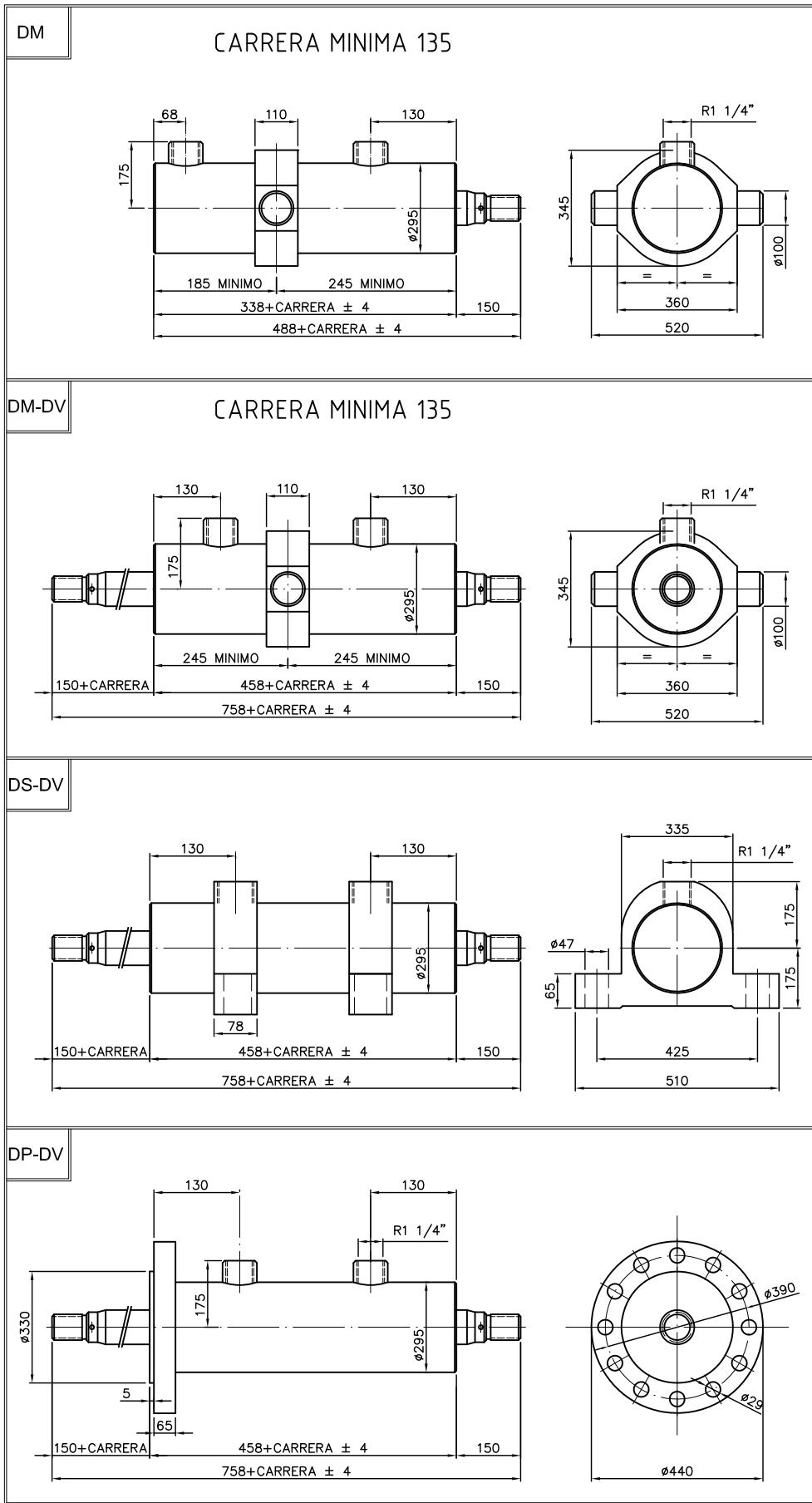
PRESION NOMINAL		210bar			
PRESION MAXIMA		280bar			
PISTON	DIAMETRO	250	mm.		
SECCION		490,9	cm. ²		
VASTAGO	DIAMETRO	140	180	mm.	
SECCION		153,9	254,5	cm. ²	
SECCION ANULAR		337	236,4		
PRESION	50	100	150	210	Kg./cm. ²
EMPUJE PISTON	24545	49090	73635	103089	
TRACCION VASTAGO Ø140	16850	33700	50550	70770	Kg.
TRACCION VASTAGO Ø180	11820	23640	35460	49644	

VASTAGO Ø 140



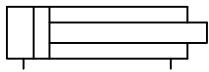
VASTAGO REFORZADO Ø 180



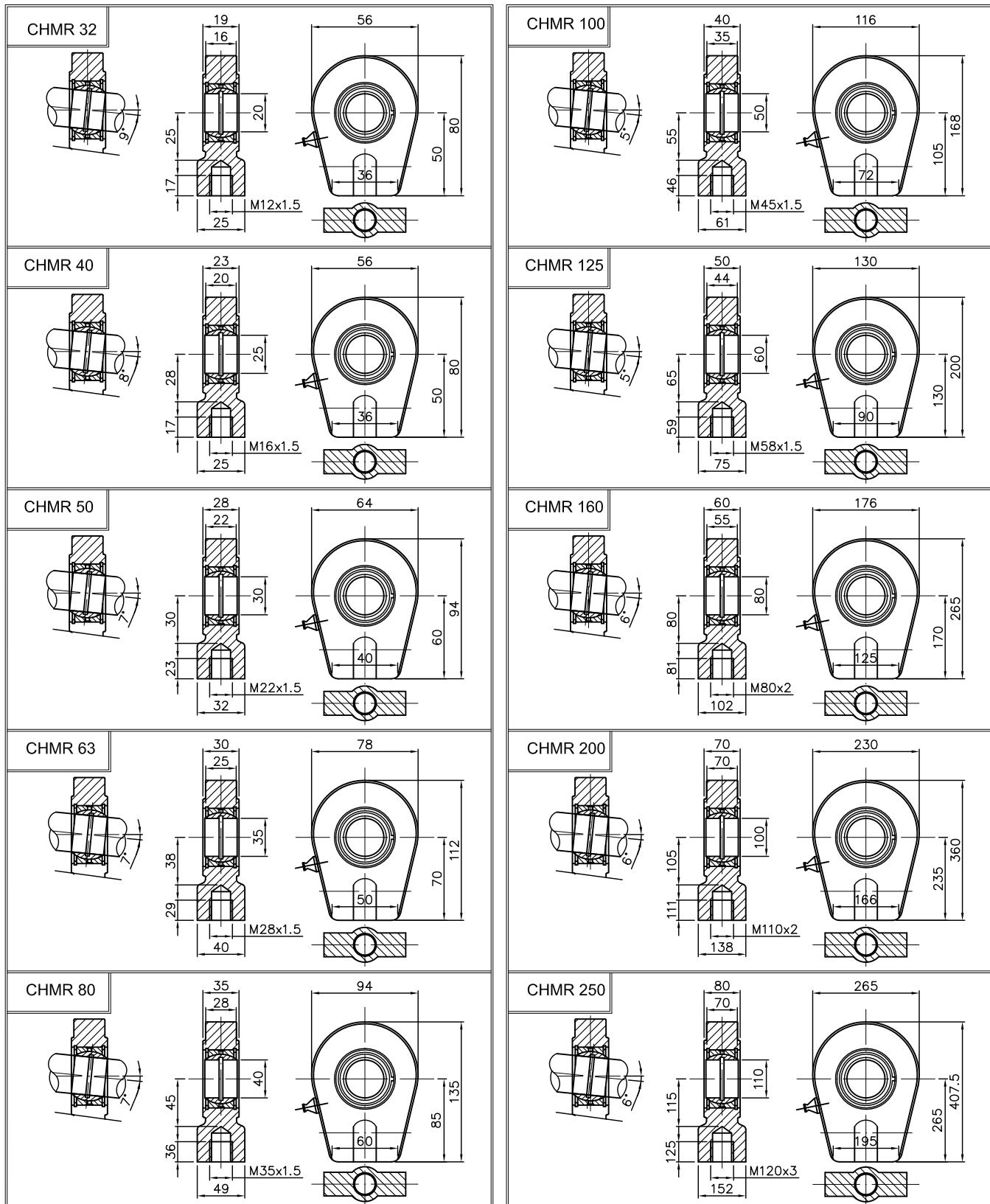


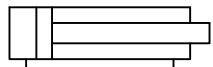
PRESION NOMINAL	210bar			
PRESION MAXIMA	280bar			
PISTON	DIAMETRO	250	mm.	
	SECCION	490,9	cm. ²	
VASTAGO	DIAMETRO	140	180	mm.
	SECCION	153,9	254,5	cm. ²
	SECCION ANULAR	337	236,4	
PRESION	50	100	150	210
EMPUJE PISTON	24545	49090	73635	103089
TRACCION VASTAGO Ø140	16850	33700	50550	70770
TRACCION VASTAGO Ø180	11820	23640	35460	49644



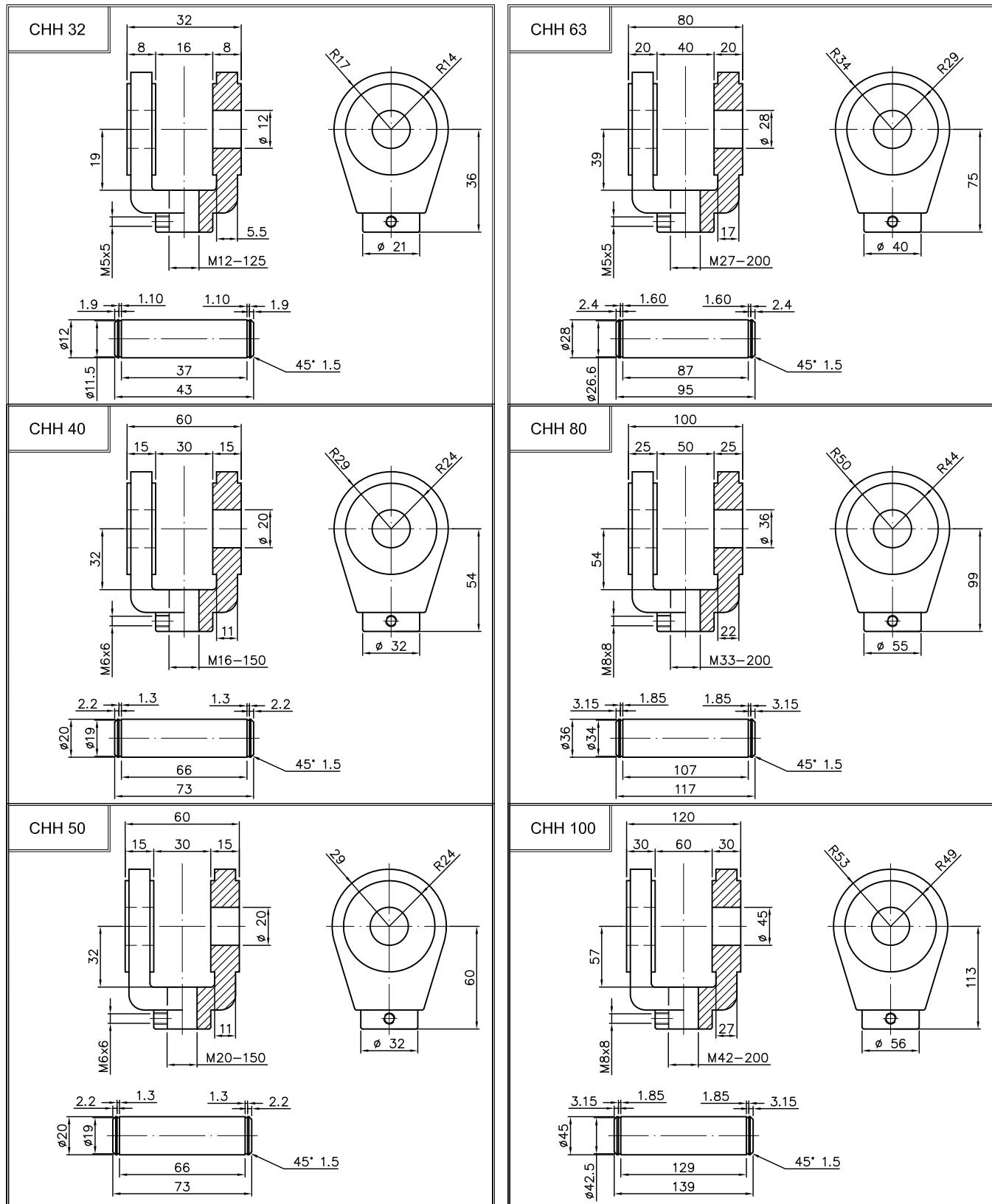


FIJACION TIPO CHAPE MACHO CON ROTULA CHMR

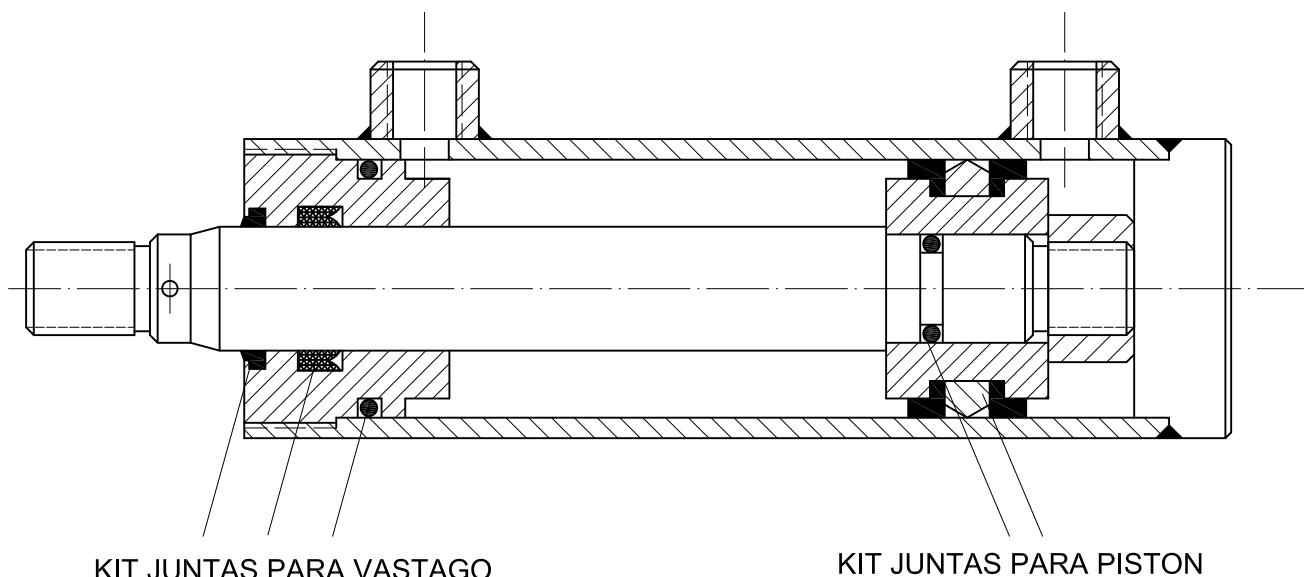




FIJACION TIPO CHAPE HEMBRA CHH



JUNTAS PARA RECAMBIO



KIT JUNTAS PARA VASTAGO

KIT JUNTAS PARA PISTON

TIPO	KIT JUNTAS PARA VASTAGO	KIT JUNTAS PARA PISTON
CNV-32-16	Kit Juntas Vástago 32-16	Kit Juntas Pistón 32-16
CNV-40-22	Kit Juntas Vástago 40-22	Kit Juntas Pistón 40-22
CNV-40-28	Kit Juntas Vástago 40-28	Kit Juntas Pistón 40-28
CNV-50-28	Kit Juntas Vástago 50-28	Kit Juntas Pistón 50-28
CNV-50-36	Kit Juntas Vástago 50-36	Kit Juntas Pistón 50-36
CNV-63-36	Kit Juntas Vástago 63-36	Kit Juntas Pistón 63-36
CNV-63-45	Kit Juntas Vástago 63-45	Kit Juntas Pistón 63-45
CNV-80-45	Kit Juntas Vástago 80-45	Kit Juntas Pistón 80-45
CNV-80-56	Kit Juntas Vástago 80-56	Kit Juntas Pistón 80-56
CNV-100-56	Kit Juntas Vástago 100-56	Kit Juntas Pistón 100-56
CNV-100-70	Kit Juntas Vástago 100-70	Kit Juntas Pistón 100-70
CNV-125-70	Kit Juntas Vástago 125-70	Kit Juntas Pistón 125-70
CNV-125-90	Kit Juntas Vástago 125-90	Kit Juntas Pistón 125-90
CNV-160-90	Kit Juntas Vástago 160-90	Kit Juntas Pistón 160-90
CNV-160-110	Kit Juntas Vástago 160-110	Kit Juntas Pistón 160-110
CNV-200-110	Kit Juntas Vástago 200-110	Kit Juntas Pistón 200-110
CNV-200-140	Kit Juntas Vástago 200-140	Kit Juntas Pistón 200-140
CNV-250-140	Kit Juntas Vástago 250-140	Kit Juntas Pistón 250-140
CNV-250-180	Kit Juntas Vástago 250-180	Kit Juntas Pistón 250-180