

POMPE E MOTORI
OLEODINAMICI
A INGRANAGGI

POLARIS[®]

PARAMETRI DI FUNZIONAMENTO

Serie	Pompa tipo PLP Motore tipo PLM	Cilindrata cm ³ /giro	Pressione max.			Velocità max.	Velocità min. min ⁻¹
			P ₁	P ₂	P ₃		
POLARIS 10	PL. 10•1	1,07	260	280	290	4000	650
	PL. 10•1,5	1,60	260	280	290	4000	650
	PL. 10•2	2,13	260	280	290	4000	650
	PL. 10•2,5	2,67	260	280	290	4000	650
	PL. 10•3,15	3,34	260	280	290	4000	650
	PL. 10•4	4,27	250	270	280	4000	650
	PL. 10•5	5,34	250	270	280	4000	650
	PL. 10•5,8	6,20	230	250	260	3500	650
	PL. 10•6,3	6,67	230	250	260	3500	650
	PL. 10•8	8,51	180	200	210	3500	650
PL. 10•10	10,67	140	160	170	3500	650	
POLARIS 20	PL. 20•4	4,95	250	280	300	4000	600
	PL. 20•6,3	6,61	250	280	300	4000	600
	PL. 20•7,2	7,29	250	280	300	4000	600
	PL. 20•8	8,26	250	280	300	3500	600
	PL. 20•9	9,17	250	280	300	3500	600
	PL. 20•10,5	10,9	250	280	300	3500	600
	PL. 20•11,2	11,23	250	280	300	3500	600
	PL. 20•14	14,53	250	280	300	3500	500
	PL. 20•16	16,85	250	280	300	3000	500
	PL. 20•19	19,09	200	220	240	3000	500
	PL. 20•20	21,14	200	220	240	3000	500
	PL. 20•24,5	24,84	170	190	210	2500	500
	PL. 20•25	26,42	170	190	210	2500	500
	PL. 20•27,8	28,21	130	150	170	2000	500
	PL. 20•31,5	33,03	130	150	170	2000	500
POLARIS 30	PL. 30•22	21,99	250	270	280	3000	350
	PL. 30•27	26,70	250	270	280	3000	350
	PL. 30•34	34,55	240	260	270	3000	350
	PL. 30•38	39,27	240	260	270	3000	350
	PL. 30•43	43,98	230	250	260	3000	350
	PL. 30•51	51,83	210	230	240	2500	350
	PL. 30•61	61,26	190	210	220	2500	350
	PL. 30•73	73,82	170	190	200	2500	350
	PL. 30•82	81,68	160	170	180	2200	350
PL. 30•90	91,10	150	160	170	2200	350	

p₁= Pressione max. continua

p₂= Pressione max. intermittente

p₃= Pressione max. di punta

I valori in tabella sono riferiti a pompe e motori unidirezionali. Le pressioni max delle pompe e dei motori reversibili sono inferiori del 15%. Per condizioni d'impiego diverse da quelle riportate in tabella consultare il nostro servizio tecnico commerciale.

PARAMETRI DI FUNZIONAMENTO

Sostituisce: 01/10.03

Q	l/min	Portata
M	Nm	Coppia
P	kW	Potenza
V	cm ³ /giro	Cilindrata
n	min ⁻¹	Velocità
Δp	bar	Pressione

Rendimenti

		Pompe	Motori
$\eta_v = \eta_v(V, \Delta p, n)$	Rendimento volumetrico	($\approx 0,97$)	($\approx 0,96$)
$\eta_m = \eta_m(V, \Delta p, n)$	Rendimento idro-meccanico	($\approx 0,88$)	($\approx 0,85$)
$\eta_t = \eta_v \cdot \eta_{hm}$	Rendimento totale	($\approx 0,85$)	($\approx 0,82$)

Determinazione di una pompa



$$Q = \frac{Q_{teor.} \cdot \eta_v}{1000} \quad [l/min]$$

$$Q_{teor.} = \frac{V \cdot n}{1000}$$

$$M = \frac{M_{teor.}}{\eta_{hm}} \quad [Nm]$$

$$M_{teor.} = \frac{\Delta p \cdot V}{62,83}$$

$$P_{IN} = \frac{P_{OUT}}{\eta_t} \quad [kW]$$

$$P_{OUT} = \frac{\Delta p \cdot Q}{600}$$

Determinazione di un motore



$$Q = \frac{Q_{teor.}}{\eta_v} \quad [l/min]$$

$$Q_{teor.} = \frac{V \cdot n}{1000}$$

$$M = M_{teor.} \cdot \eta_{hm} \quad [Nm]$$

$$M_{teor.} = \frac{\Delta p \cdot V}{62,83}$$

$$P_{IN} = \frac{\Delta p \cdot Q}{600} \quad [kW]$$

$$P_{OUT} = P_{IN} \cdot \eta_t$$

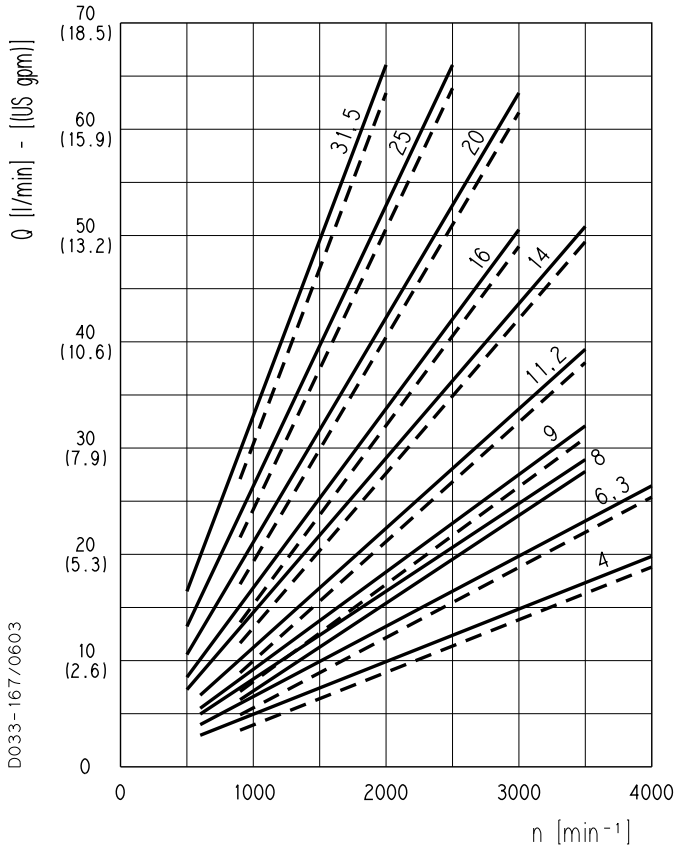
03/02.2012

Nota: Nelle pagine successive troverete dei diagrammi che vi permetteranno di fare dei calcoli approssimativi.

PLP 20

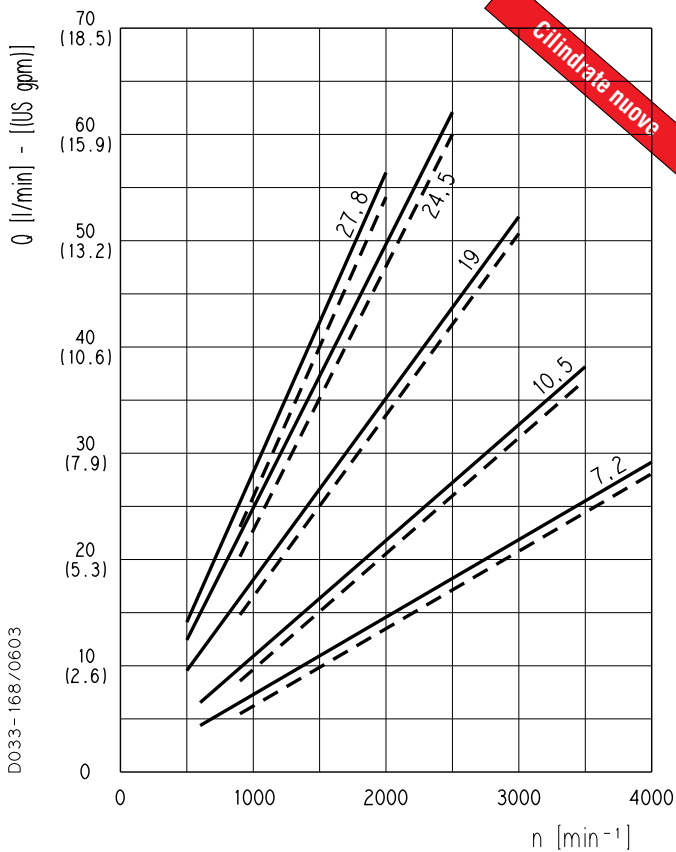
CURVE CARATTERISTICHE POMPE POLARIS 20

PLP 20



Le curve sono state ottenute alla temperatura di 50°C, utilizzando olio con viscosità 36 mm²/s a 40°C e alle pressioni sotto riportate.

PLP 20•4	—	20 bar
	- -	250 bar
PLP 20•6,3	—	20 bar
	- -	250 bar
PLP 20•8	—	20 bar
	- -	250 bar
PLP 20•9	—	20 bar
	- -	250 bar
PLP 20•11,2	—	20 bar
	- -	250 bar
PLP 20•14	—	20 bar
	- -	250 bar
PLP 20•16	—	20 bar
	- -	250 bar
PLP 20•20	—	20 bar
	- -	200 bar
PLP 20•25	—	20 bar
	- -	170 bar
PLP 20•31,5	—	20 bar
	- -	130 bar

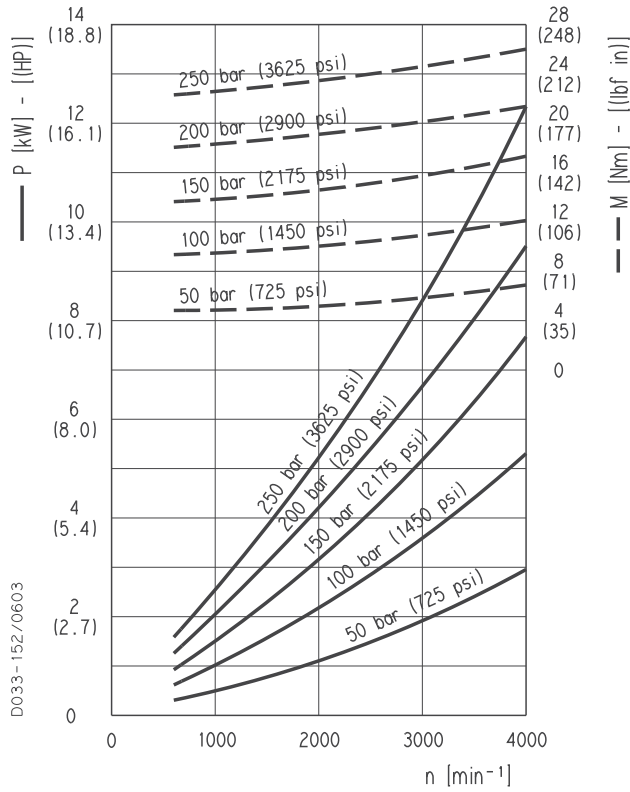


PLP 20•7,2	—	20 bar
	- -	250 bar
PLP 20•10,5	—	20 bar
	- -	250 bar
PLP 20•19	—	20 bar
	- -	200 bar
PLP 20•24,5	—	20 bar
	- -	170 bar
PLP 20•27,8	—	20 bar
	- -	130 bar

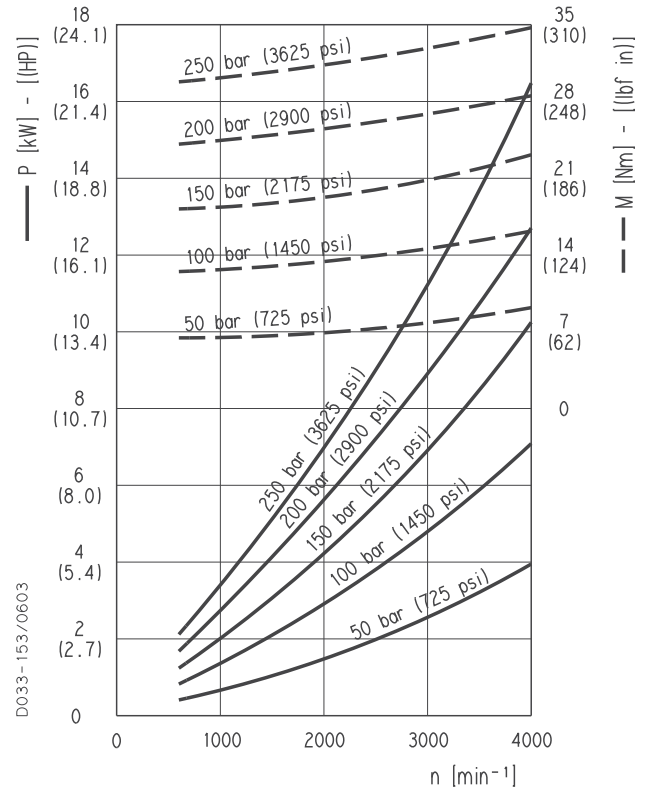
PLP 20

CURVE CARATTERISTICHE POMPE POLARIS 20

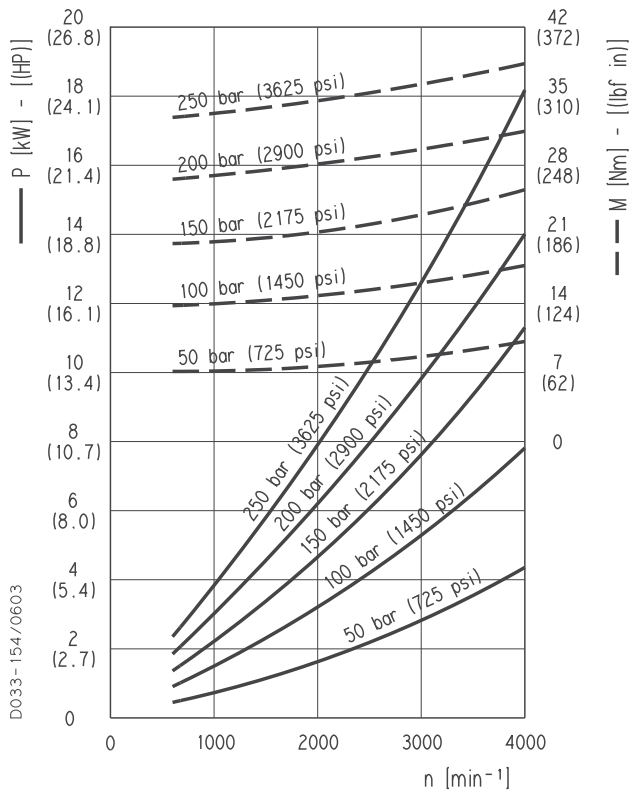
PLP 20•4



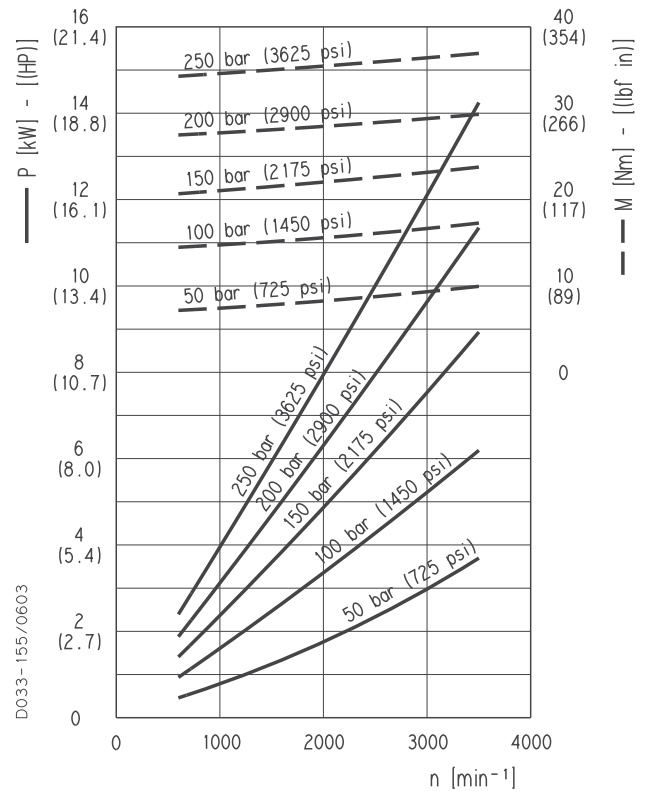
PLP 20•6,3



PLP 20•7,2



PLP 20•8

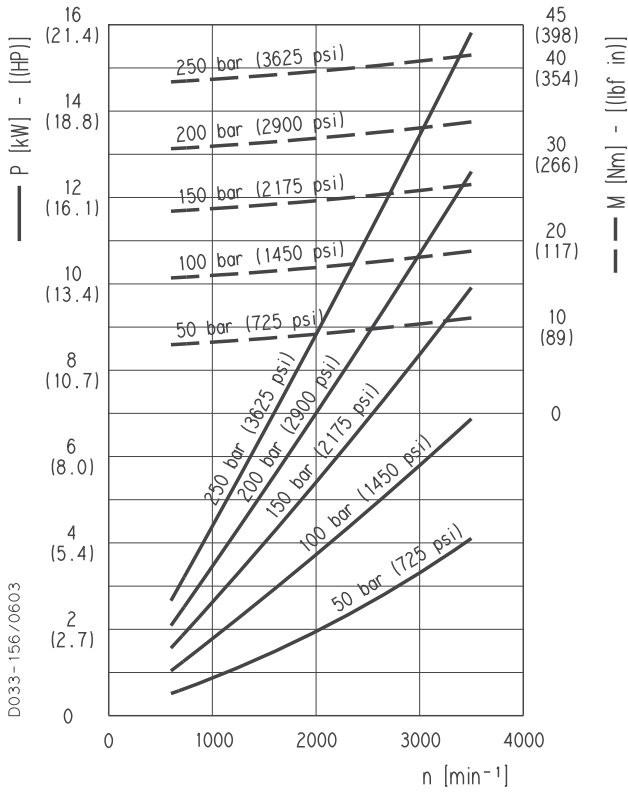


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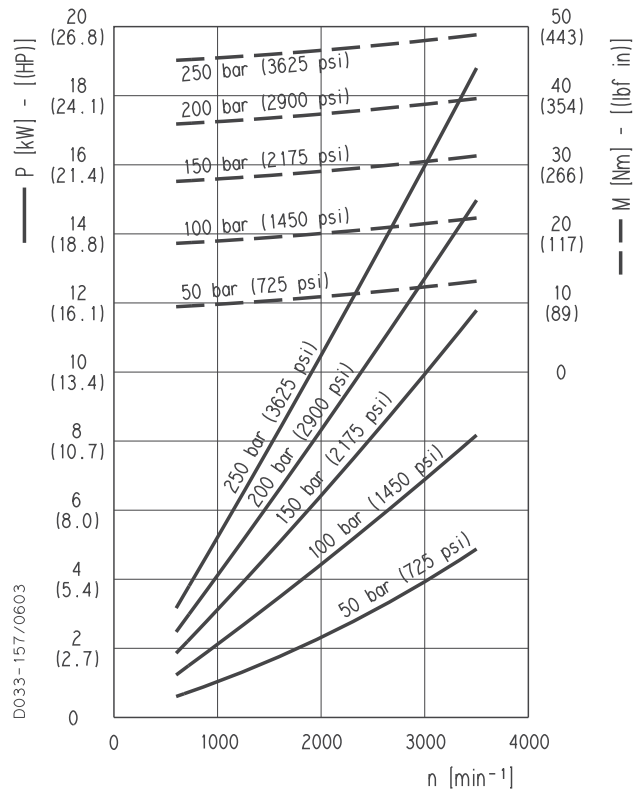
PLP 20

CURVE CARATTERISTICHE POMPE POLARIS 20

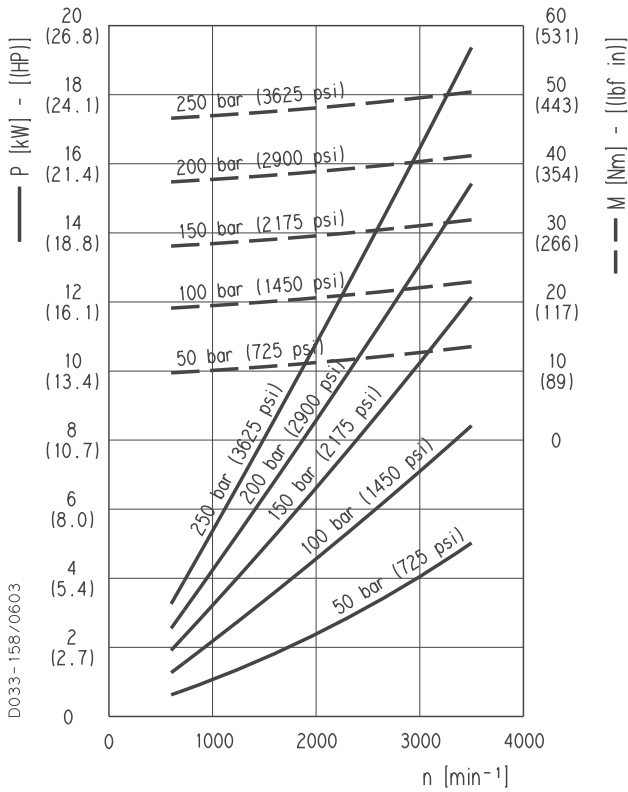
PLP 20•9



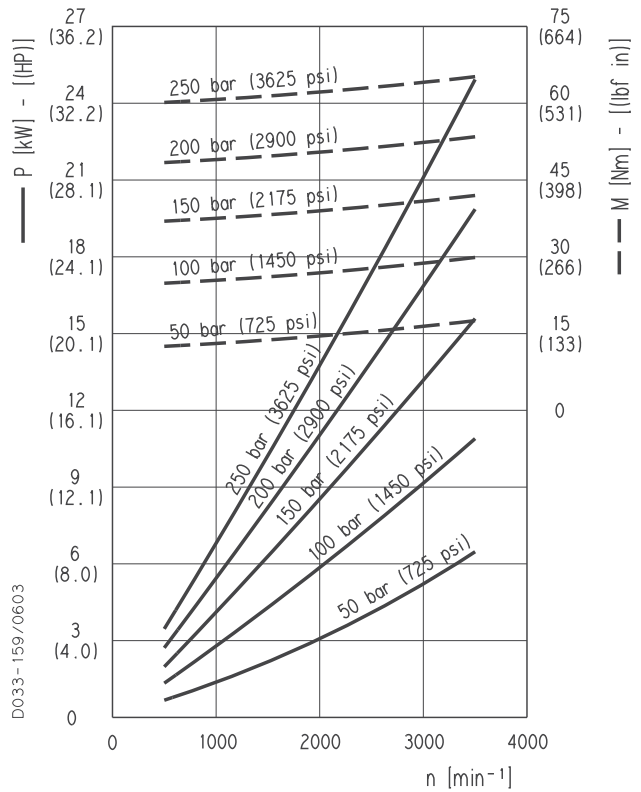
PLP 20•10,5



PLP 20•11,2



PLP 20•14

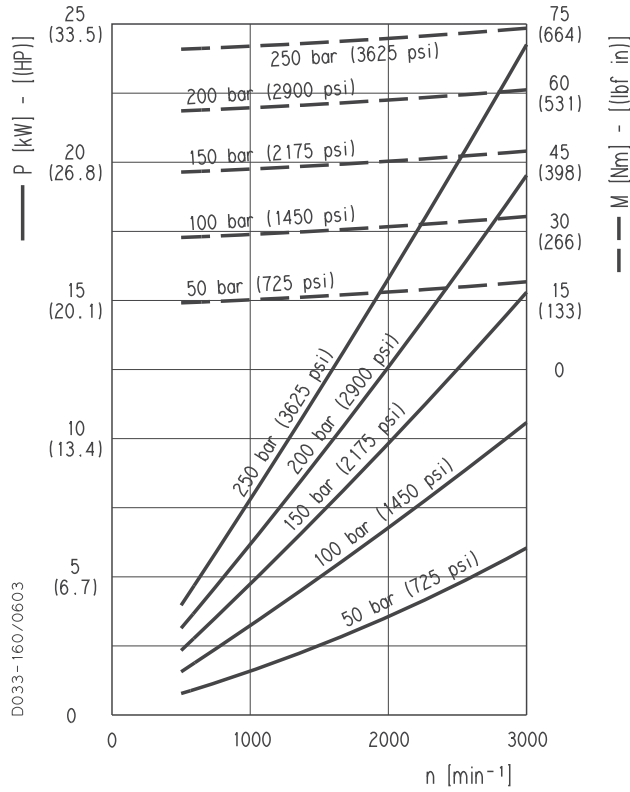


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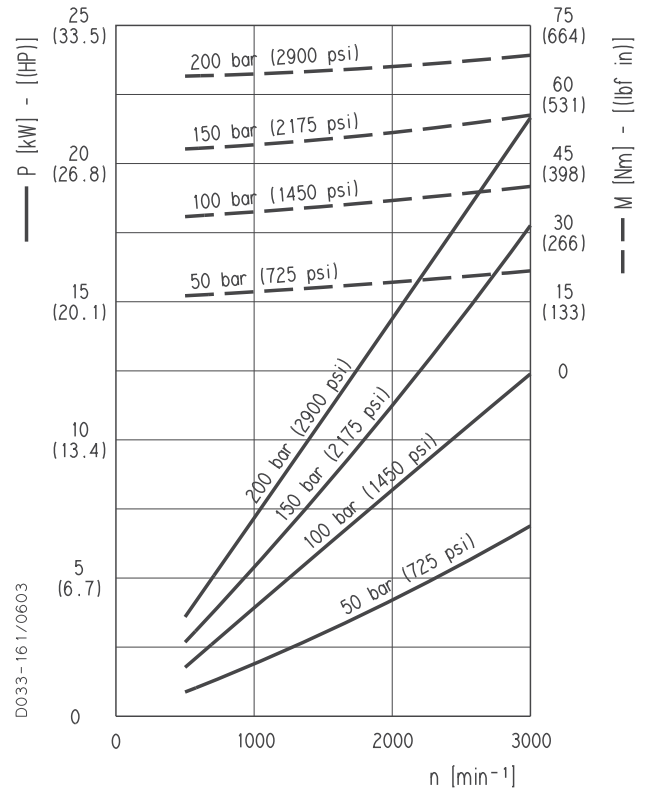
PLP 20

CURVE CARATTERISTICHE POMPE POLARIS 20

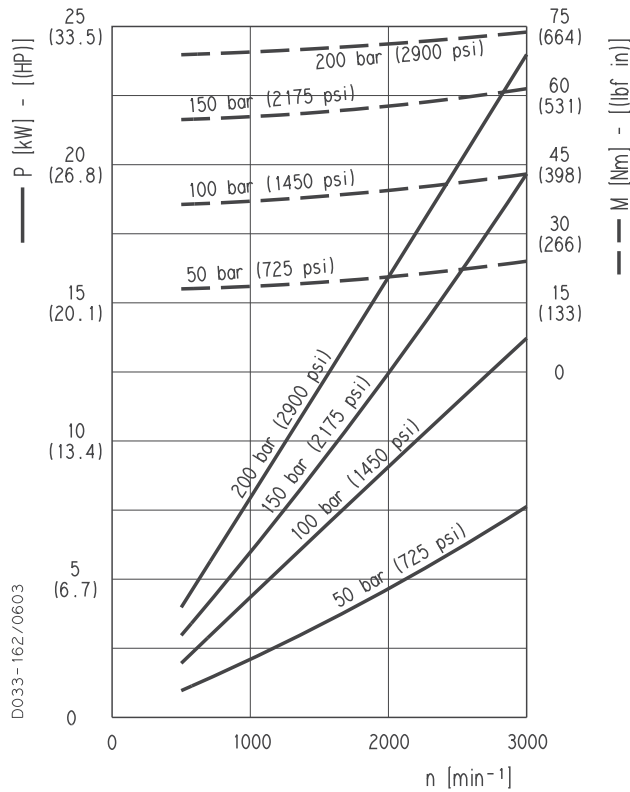
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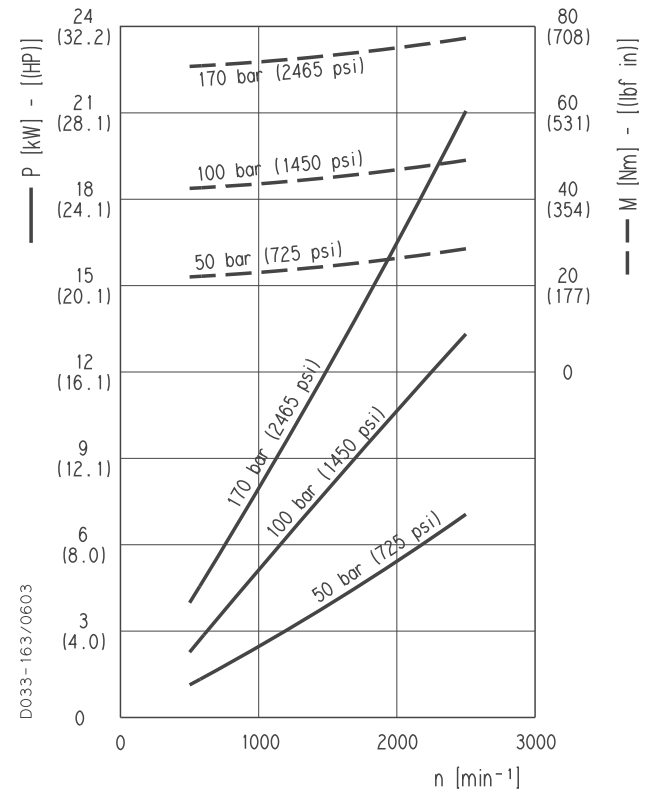
PLP 20•19



PLP 20•20



PLP 20•24,5

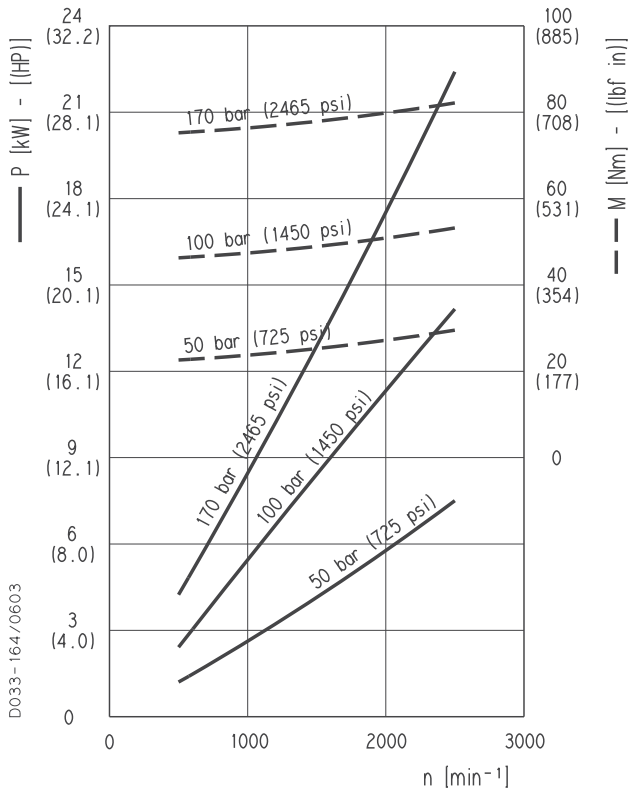


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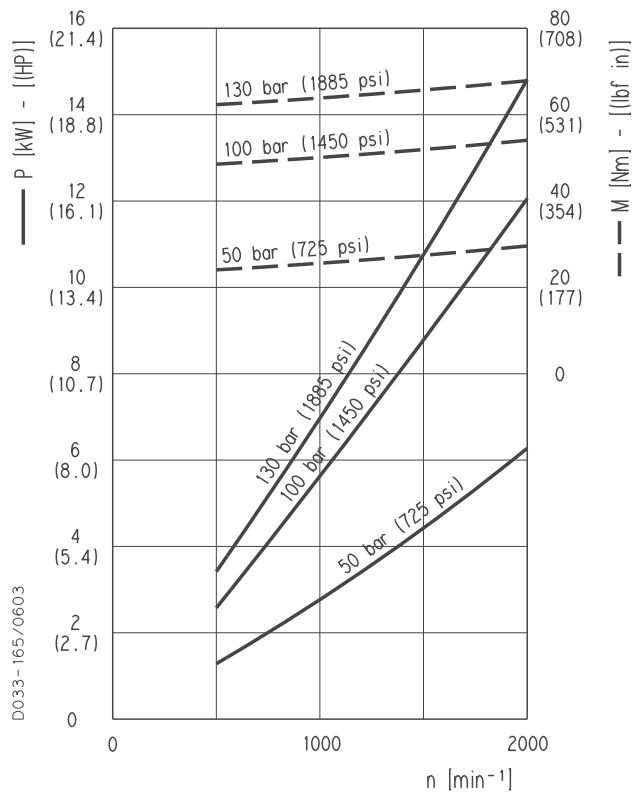
PLP 20

CURVE CARATTERISTICHE POMPE POLARIS 20

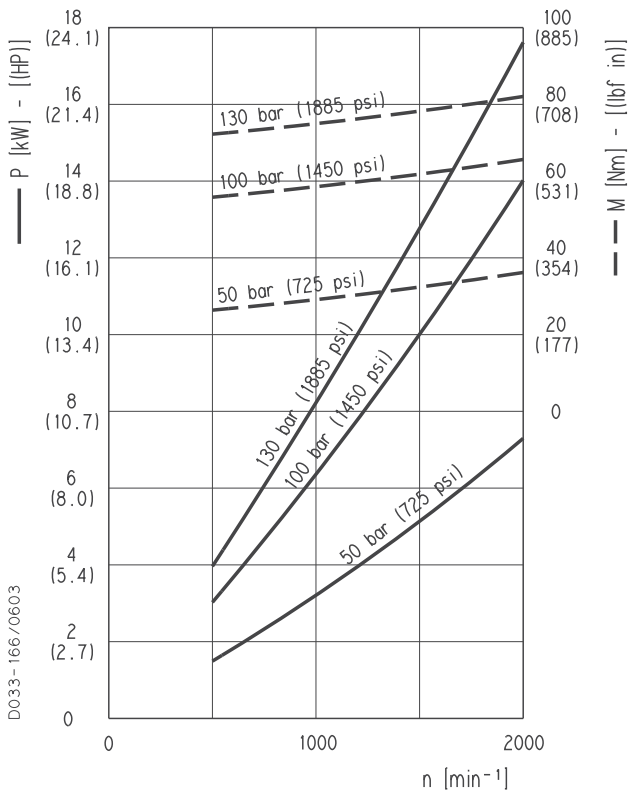
PLP 20•25



PLP 20•27,8



PLP 20•31,5



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