



LEHENGOTAK, S.A.

BUCHER
HYDRAULICS

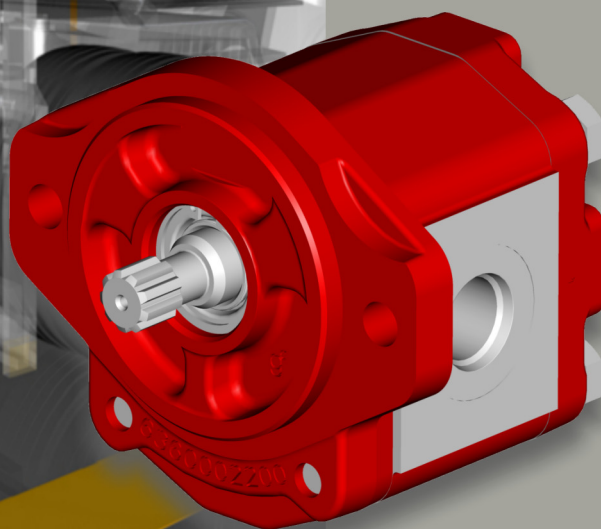
AP/APM212 Gear Pumps and Motors



Low Noise emissions

High efficiencies

**Reduced pressure
pulsation**



motion and progress

An introduction to the NEW AP/APM212 family



Gear pumps are widely used in modern hydraulic systems due to their high performance, long service life and low purchase and maintenance costs.

Product development of the new AP212 family has made it possible to achieve high operating pressures, excellent volumetric and mechanical efficiency and on specially developed units (LN – Low Noise) even lower noise levels. This has been possible by means of:

- new design of gear teeth and balancing areas
- use of high-performance materials

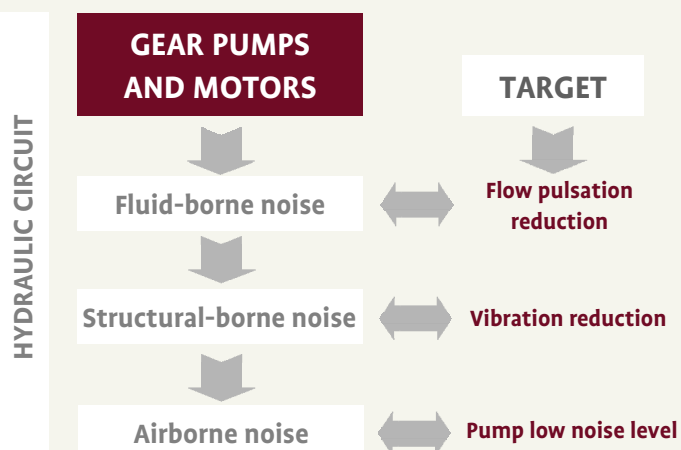
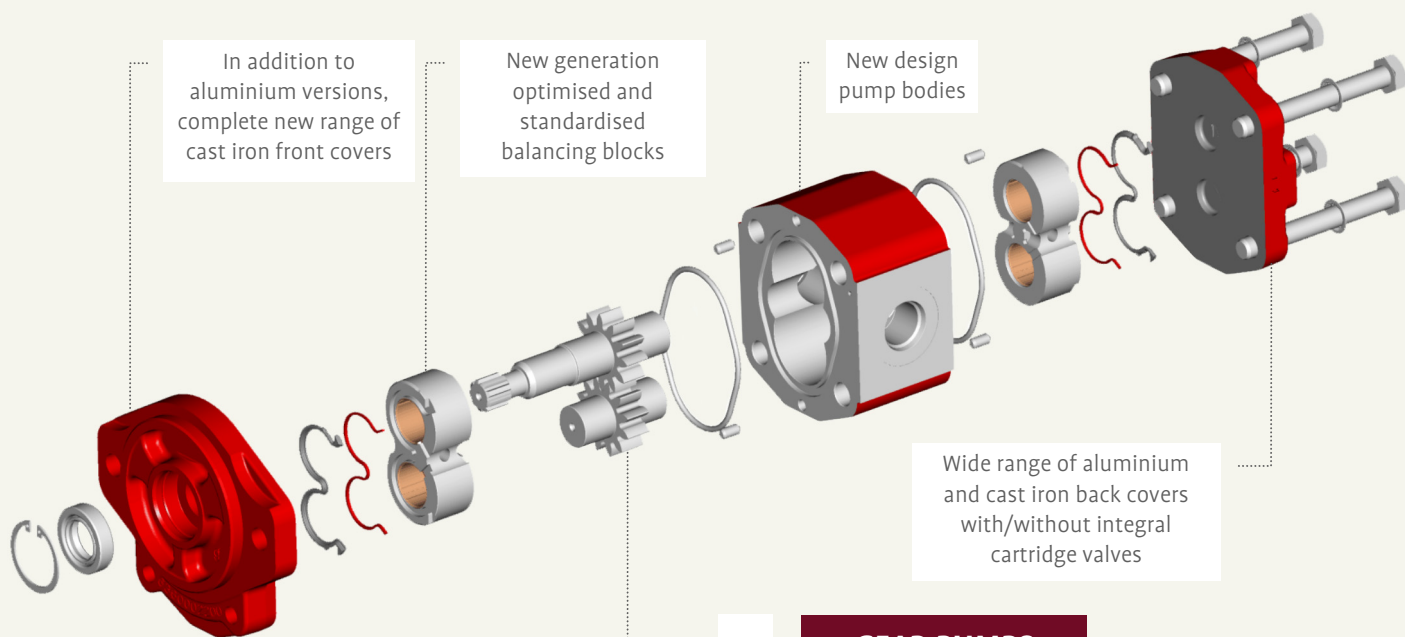
- carefully controlled heat treatments
- increasingly tight coupling tolerances and a high standard of surface finish.
- continuous development in our semi-anechoic room

Bucher Hydraulics has so achieved these results by constantly improving its design, control and manufacturing techniques inline with the latest technological developments, while simultaneously enhancing our Quality Control System which ensures that every single product offers the same high standards.

Technical Data:

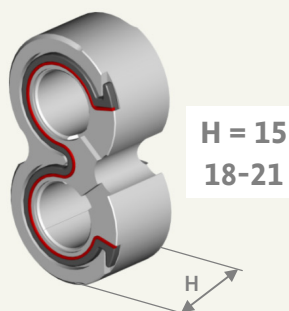
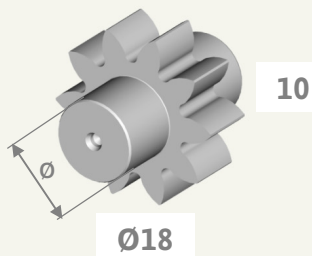
Displacement	4,4 – 27,1 cm ³ /rev
Maximum continuous pressure	250 bar
Fluid temperature range	-20 +80 °C
Recommended fluids	hydraulic mineral oil-based
Viscosity range: Recommended	20-120 mm ² /s (cSt)
permitted	up to 700 mm ² /s (cSt)
permitted for starting	2000 mm ² /s (cSt)
Cleanliness:	
recommended for operating pressure >170 bar:	21/18/15 ISO 4406
recommended for operating pressure <170 bar:	22/19/16 ISO 4406
Seals material	NBR standard (HNBR optional)

Gear pumps and motors component improvements

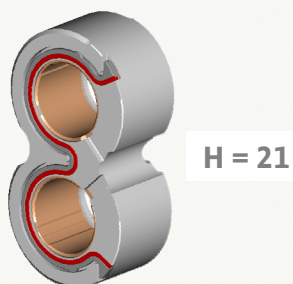
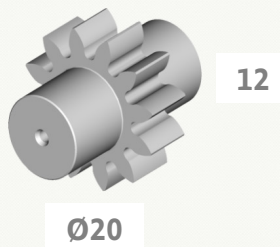


AP200 vs AP212 + APM212 main features

AP200

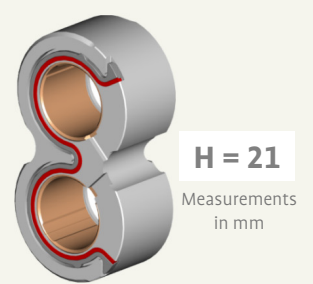
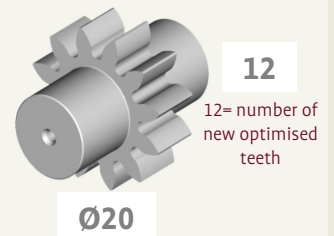


AP212



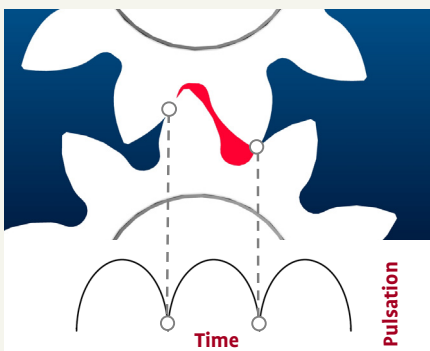
AP212 optimised balancing area with higher performance materials

AP212LN

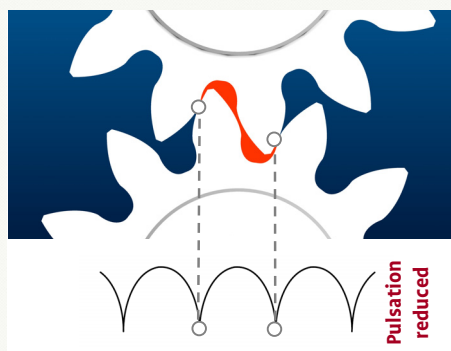


AP212 optimised balancing area with higher performance materials

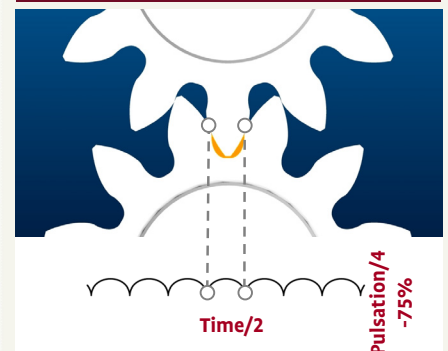
AP200 Standard gear pump



AP212 Gear pump

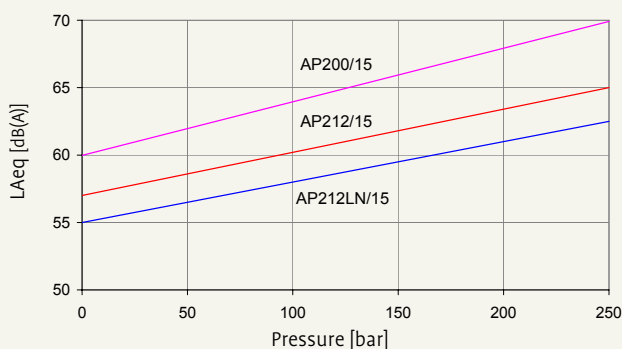


AP212 Low Noise gear pump



Typical sound pressure level recorded in a semi-anechoic testing room

Noise reduction effects



Oil temperature: 40°C - Oil viscosity: 32 mm²/s
Distance between pump and sensor: 1 m



APM212 Fan Drive Motor – Example of different configurations

The development of the 212 family project also involved the APM212, group 2 external gear motors.

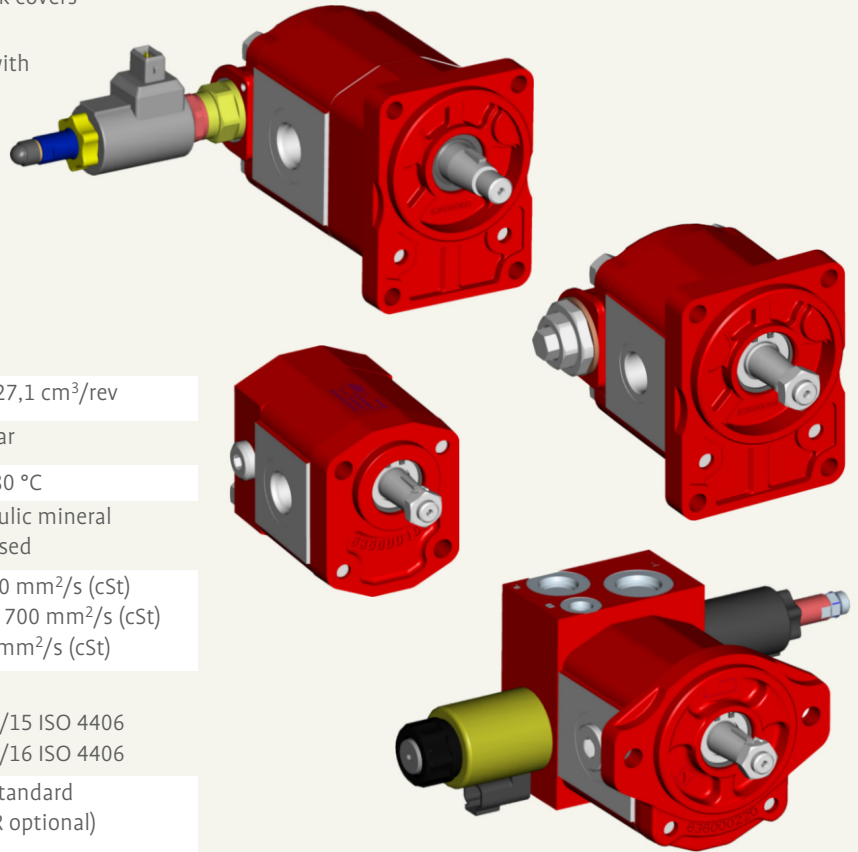
For this motor line all the front and rear aluminium covers, already available in standard production, have been updated.

In the meantime, a wide range of cast iron front and back covers for heavy duty applications have been developed.

In particular, the new series of rear covers are available with integral cartridge valves for a variety of functions.

Mechanical valves, such as anti-shock and anti-cavitation, as well as electrically operated valves, such as directional control, on-off or proportional types are so available.

Please consult our Sales Centers for further details.



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Gear Pumps and Motors main applications



Performances

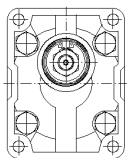
	AP/APM 212		AP/APM 212LN		Max Pressure *						n min	n max	
	Type	cm³/rev	Cu.In.Rev.	cm³/rev	Cu.In.Rev.	P1 (continuous)		P2 (intermittent)		P3 (peak)		P<100bar	rpm
						bar	PSI	bar	PSI	bar	PSI		
Pumps	4,5	4,4	0,269	4,5	0,275	250	3600	280	4000	300	4300	600	4000
	6,5	6,4	0,391	6,6	0,403	250	3600	280	4000	300	4300	600	4000
	8,5	8,4	0,513	8,7	0,531	250	3600	280	4000	300	4300	600	4000
	11	11,1	0,677	11,5	0,702	250	3600	280	4000	300	4300	500	3500
	15	15,1	0,921	15,7	0,958	250	3600	280	4000	300	4300	500	3500
	19	19,2	1,172	19,8	1,208	210	3000	240	3500	260	3700	500	3000
	22	22,2	1,355	23	1,404	180	2600	210	3000	230	3300	500	3000
	26	26,2	1,599	27,1	1,654	170	2500	200	2850	220	3150	500	2800
	22**	22,2	1,355	23	1,404	220	3150	240	3450	260	3700	500	3000
	26**	26,2	1,599	27,1	1,654	200	2850	230	3300	250	3600	500	2800
Motors	6,5***	6,4	0,391	6,6	0,403	250	3600	280	4000	300	4300	650	4000
	8,5	8,4	0,513	8,7	0,531	250	3600	280	4000	300	4300	600	4000
	11	11,1	0,677	11,5	0,702	250	3600	280	4000	300	4300	500	3500
	15	15,1	0,921	15,7	0,958	250	3600	280	4000	300	4300	500	3500
	19	19,2	1,172	19,8	1,208	200	2850	230	3300	250	3600	500	3000
	22	22,2	1,355	23	1,404	180	2600	210	3000	230	3300	500	3000
	26	26,2	1,599	27,1	1,654	170	2500	200	2850	220	3150	500	2800

* Referred to pumps and motors with flanged ports

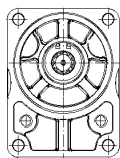
** obtained with a specific balancing plate

*** on request, please contact our Sales Centers

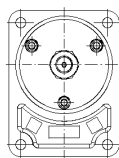
Type of series available



218-818



225-227



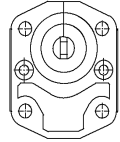
225 2K1
220 2T1



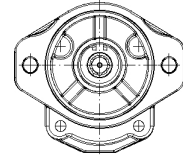
235-237



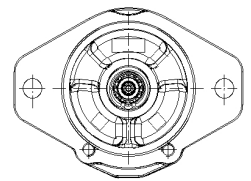
245-247



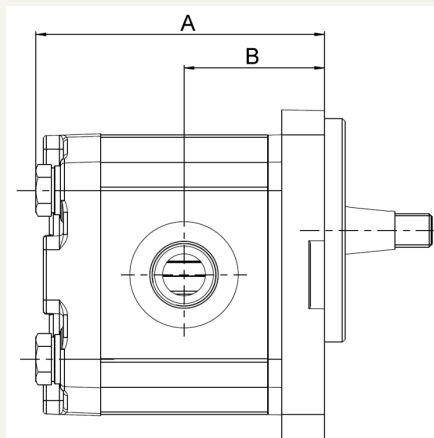
259



8875-880
287SB-280B



287S SAEB



	AP/APM212 AP/APM212LN	225 - 227	218 - 818	235-245-237 247-259	8875-880 287SB-280B 287S SAEB	225 2K1 225 2T1
A	4,5	91	94	80	88,5	118
	6,5	94	97	83	91,5	121
	8,5	97	100	86	94,5	124
	11	101	104	90	98,5	129
	15	107	110	96	104,5	135
	19	113	114	102	110,5	141
	22	117	118	106	115	145
	26	123	124	112	121	151
B	4,5	44,3	43,3	41,5	42,5	73
	6,5	45,8	44,8	43	44	74,5
	8,5	47,3	46,3	44,5	45,5	76
	11	49,3	48,3	46,5	47,5	78
	15	52,3	51,3	49,5	50,5	81
	19	55,3	54,3	52,5	53,5	84
	22	57,5	56,5	54,8	55,5	86
	26	60,5	59,5	57,8	58,5	89

Measurements in mm