

Armak Geared Piston Air Motor

AGP16F / AGP16V

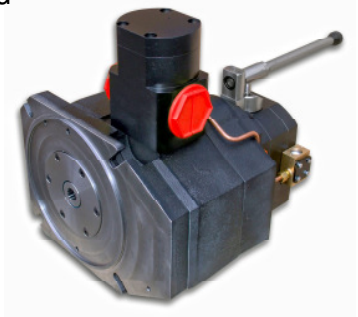


New Technology Air Motors

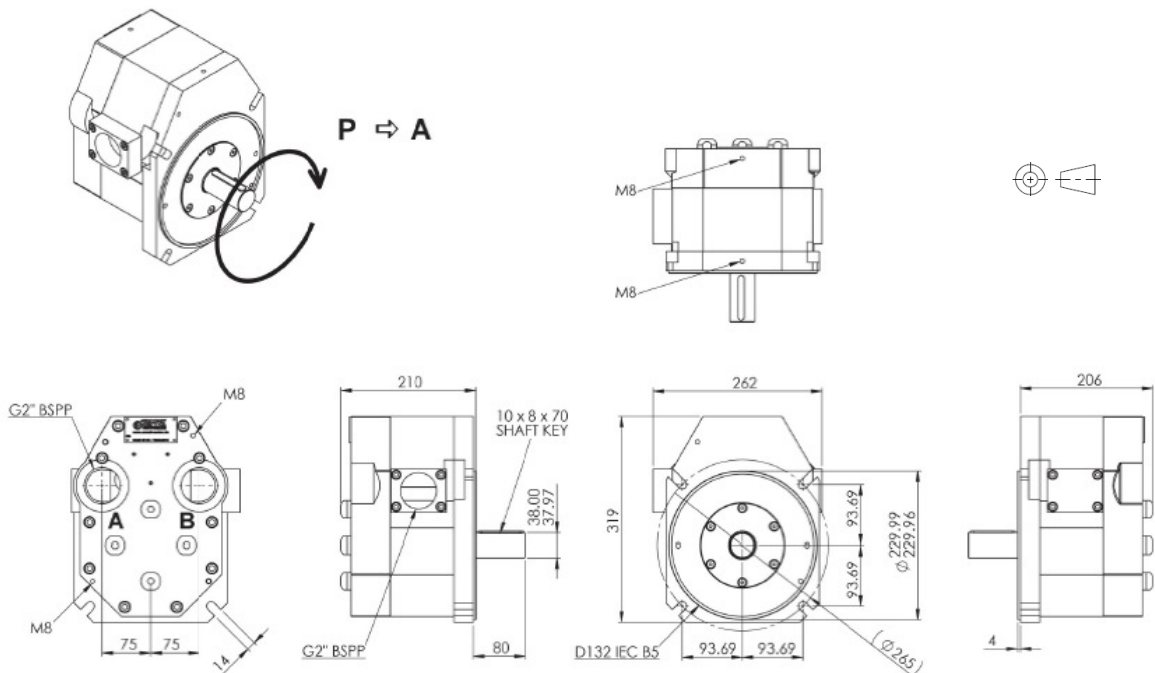
- non vibrating operation even at high speeds
- contact free rotating pistons, resulting in long lifetime with reduced maintenance
- motor efficiency increases over time
- completely enclosed motor casing prevents internal corrosion. Without an internal oil sump
- compact design with total freedom of installation
- usable speed range from 75 rpm - high start torque
- metric flange D132 for mounting of standard IEC gear boxes. SAE flange upon request
- motor **AGP16F** with key and keyway shaft for belt or chain drive
- motor **AGP16V** with internal splined output and with special shaft extensions to mount on brakes, gears or other equipment
- perfect control with Armak lever or remote control valves including emergency stop or brake to machinery directive.
- ATEX II cat. 2 GDcT5 and ATEX I M2 can be supplied, valid for the ATEX operating parameters



The torque is developed by one power piston and is transferred to the output shaft with a second rotating piston by a synchronising gear train. Both pistons are rotating without physical contact and high motor efficiency. This frictionless operation results in a long **maintenance free operation** without downtime. The **totally closed motor housing** without breather holes permits applications in wet or dirty surroundings without corrosion inside the motor



Motor Version **AGP16FA** - for Chain- or Pinion Drive

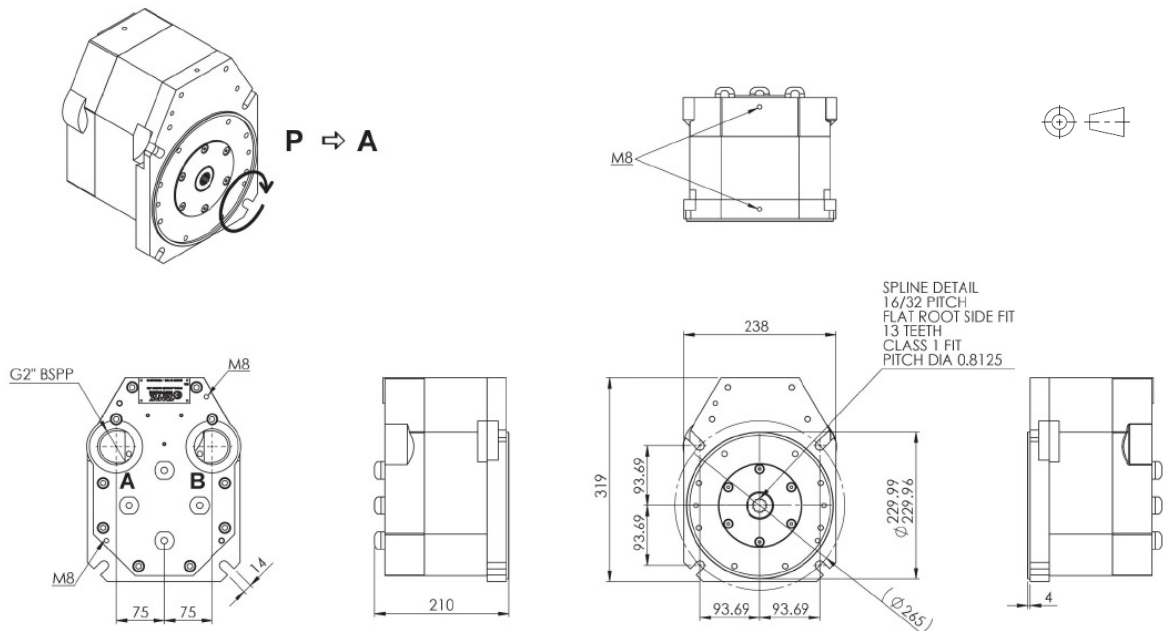


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Motor version **AGP16VA** - for mounting on brakes, gearboxes or machinery



Shaft extensions 117-048, 117-050, 117-065, 117-066 available for various applications

Technical Data AGP16 6 bar motor only without accessories like silencer, FRL, valves

max. power	kW	16	air lubrication short run	drop/min	12 – 16
speed at P _{max}	rpm	1.300	air lubrication continuous run	drop/min	8 -10
torque at P _{max}	Nm	120	ambient temperature	° C	-20 - +80
starting torque	Nm	165	air inlet temperature	° C	max.60
short time peak speed	rpm	2.500	air inlet pressure, max	bar	8
cont. speed.	rpm	1.800	weight	kg	82
suggested min. speed	rpm	75	radial force shaft centre, max	N	10.000
air line connection		G 2"	axial force on shaft, max	N	100

Motor Versions	Part Number
Motor basic design	AGP16FA / VA
Motor with lever control valve LCV, full power ACW	AGP16FM / VM
Motor with lever control valve LCV, full power CW	AGP16FN / VN
Motor with lever control valve LCV, equi power	AGP16FO / VO
Motor with remote control valve RCV, full power ACW	AGP16FS / VS
Motor with remote control valve RCV, full power CW	AGP16FT / VT
Motor with remote control valve RCV, equi power	AGP16FU / VU
Abbreviations: LCV=Lever Control Valve; RCV =Remote Control Valve	
Accessories	Part number
Remote controller for RCV	on request
Brake	on request
Gear box	on request
Silencer	on request
Service kit - FRL	on request

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Valves:

Motors AGP10FA / AGP10VA cannot at a later date be equipped with Armak valves. Their air line connections are built for simple, easy installation

Note:

All data are valid only with sufficient air supply and when using correctly sized fittings and valves with net. cross section suitable for the air volume required. Pressure loss by lubricator, silencer, valves and piping must be considered.

From the operating point consider the starting torque (example winches) or consider the operating torque (example pump drive).

In case of system failure (blocked shaft) the max. starting torque must be considered to prevent the motor from damaging gears or other components.

When using gears consider the gearbox efficiency: helical / epicyclic gears up to 97% per stage, worm gears sometimes below 50%, all depending on gear box design.

Additional Armak Motors:

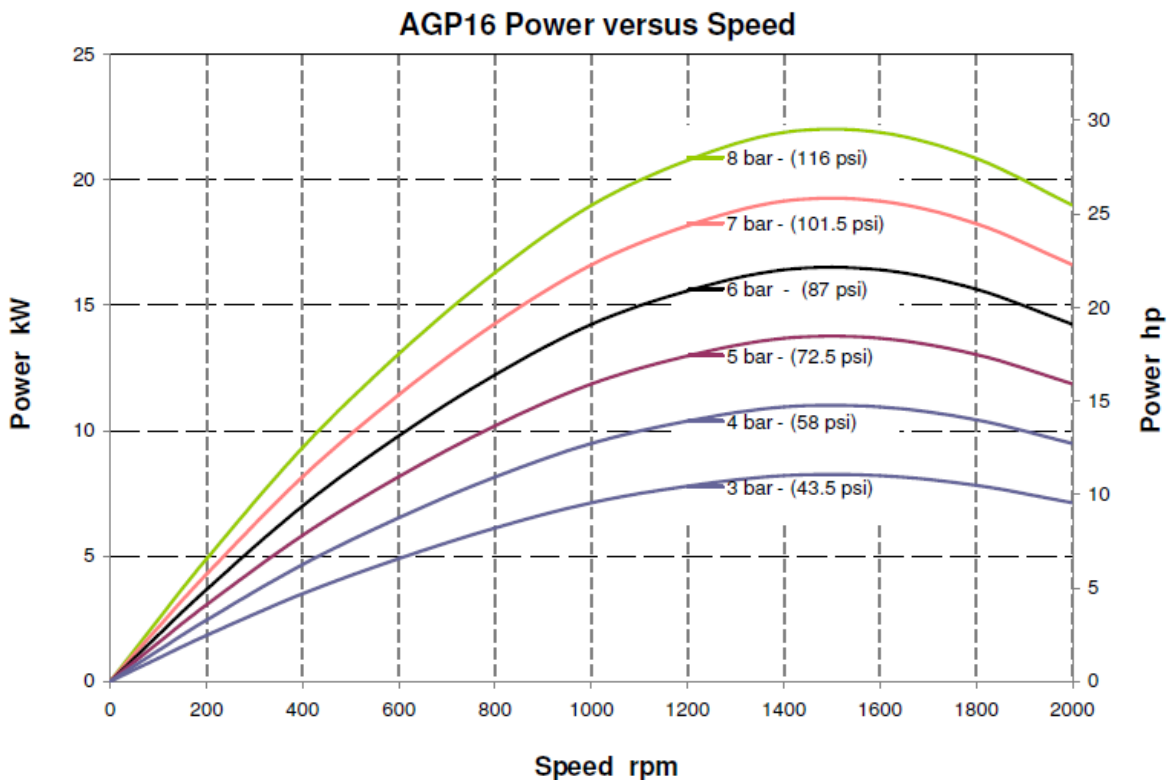
Armak Geared Piston Air Motor AGP110E, AGP210A, AGP310A, AGP410, AGP510A
Armak Geared Piston Air Motor AGP01BE, GP04BE, AGP06BE, AGP07FA, AGP10FA-VA

Final Comment

In order to assure long and trouble free operation above data and additional data from the service manual must be adhered to.

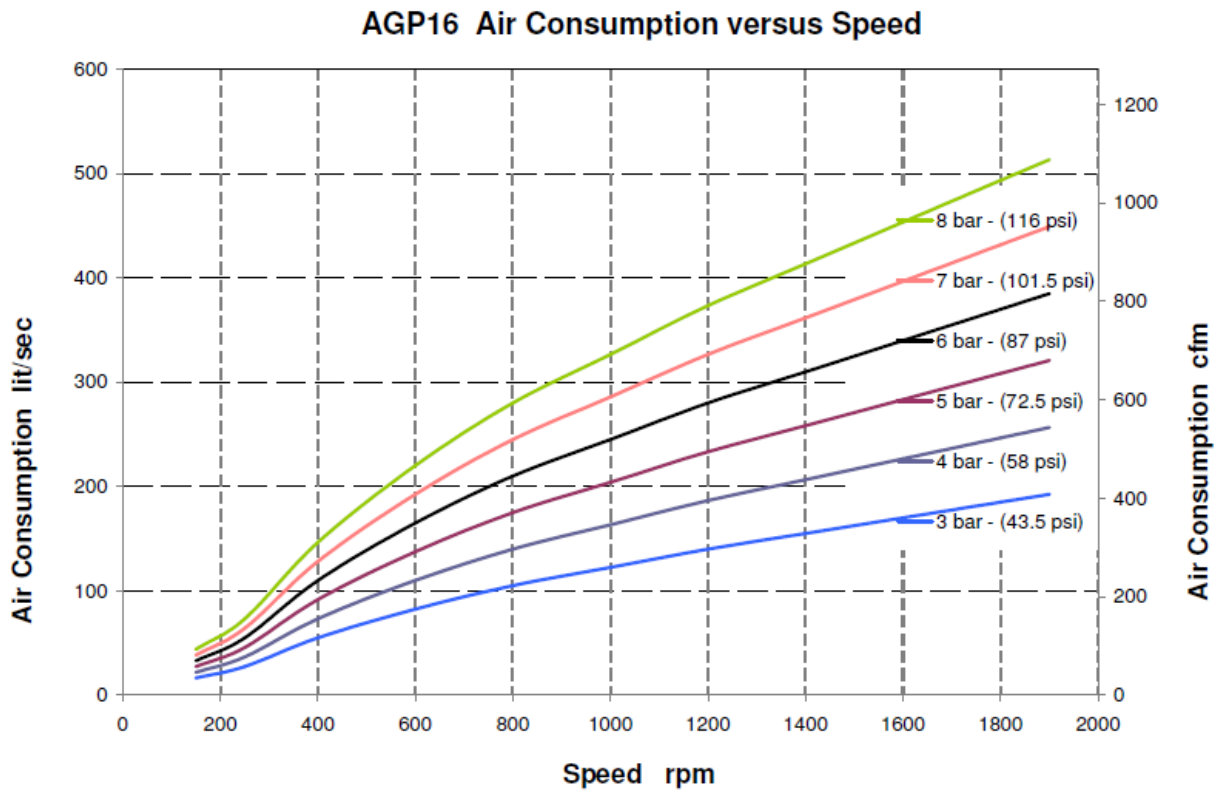
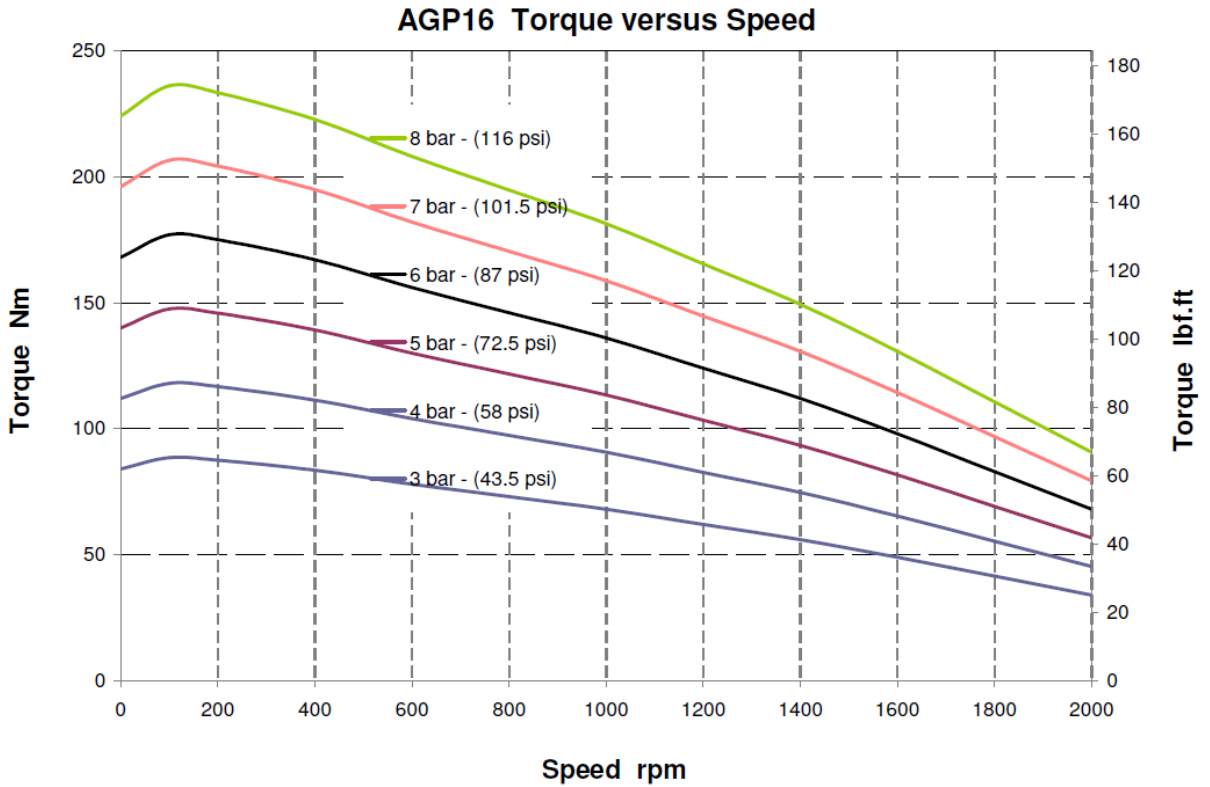
Performance Data for AGP16

valid for pressure difference of 6 bar across motor



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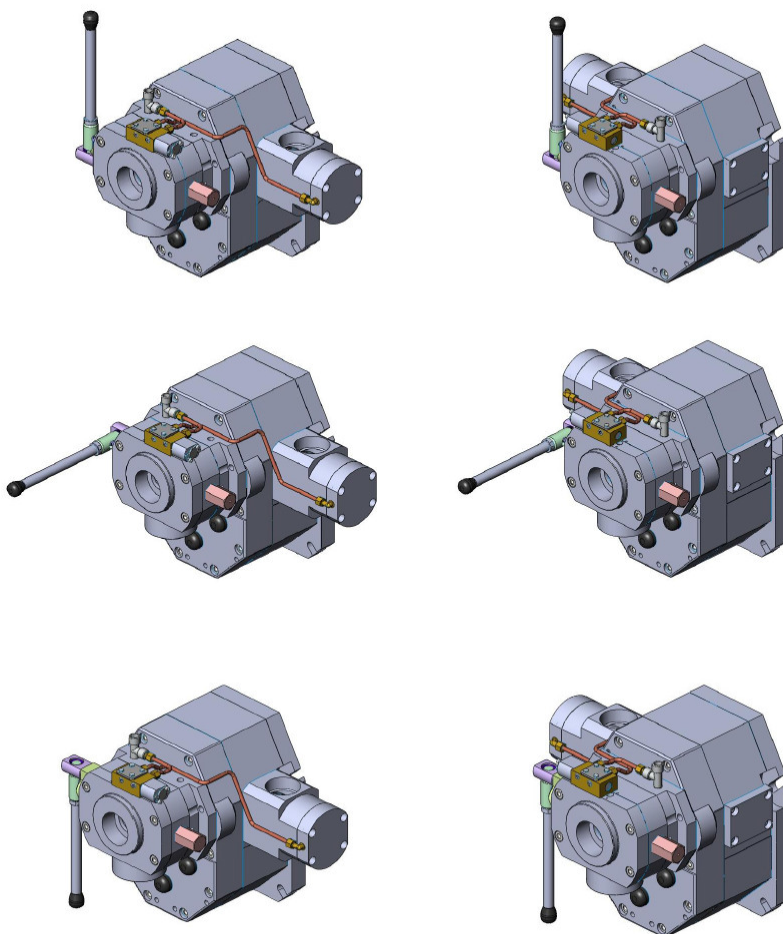
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Armak Motor AGP16FM, AGP16FN / AGP16VS, AGP16VT with Lever Control Valve

To prevent operator errors, the valve installation must fit the actual application.
On all motors AGP01, AGP04, AGP06, AGP07, AGP10, AGP16 the control lever can point upwards, forward or down.

Such lever adjustment can be done even during the final installation of the motor



To achieve bias in valves as required for example in winch applications, CP check plates are installed in the valves. Depending on the application and on the user's equipment, the air flow cross section in these check plates must be adjusted.

Armak Lever Control or Remote Control Valves can completely if briefly stop the lowering under load on a winch. Brakes therefore will be static brakes with long life.

On Armak Air Motors AGP16 (shown below) the power valve can be mounted to the right or left of the motor. The power valve position must be specified with order.

Armak Geared Piston Air Motor AGP16F / AGP16V



Armak Drehkolben Druckluftmotoren - Übersicht

Motor	Data at max. power and 6 bar			Start Torque Nm	max. continuous rpm	Mass kg
	kW	rpm	Nm			
AGP01	1,8	2.700	6,6	6,3	3.000	9
AGP110◆	1,8	2.700	6,6	6,3	3.000	9
RM110	1,2	2.100	5,3	6,8 – max. 11	2.400	13
AGP04	3,5	2.200	15	17	2.500	14
AGP210◆	3,5	2.200	15	17	2.500	14
RM210	2,8	1.980	14	19 – max 35	2.400	26
AGP06	6,2	2.600	22	28	2.600	20
AGP07	8,0	1.600	50	90	2.000	60
AGP310◆	8,0	1.600	50	90	2.000	60
RM310	6,1	1.800	32	35 – max 70	2.400	48
AGP10	11,0	1.100	95	140	1.800	75
AGP410◆	11,0	1.100	95	140	1.800	75
RM410	10,5	1.600	62	75 – max. 70	2.000	62
AGP16	16,0	1.300	120	165	1.800	82
AGP510◆	16,0	1.300	120	165	1.800	82
RM510	16,0	1.150	132	170–max 240	1.500	115

◆ AGP Motor with flange identical to equivalent Globe Radial Piston Motor

Winch Drive



Coal Mining Locomotive



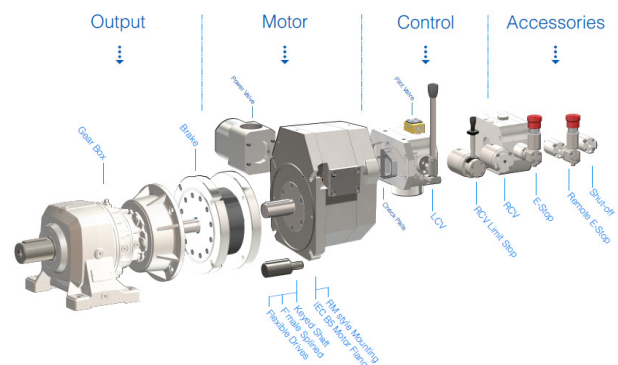
Earth Drilling Rig



Production Facility Hull, England



Armak Geared Piston Motors GP



We reserve the right for improvements without prior notice