

# Armak Rotary Piston Air Motor

## Type AGP07F



### New Technology Air Motors

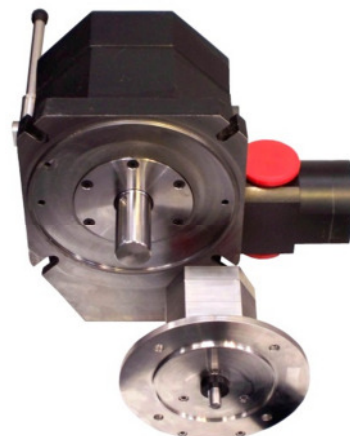
- non vibrating operation even at high speeds
- contact free rotating pistons, resulting in long lifetime with reduced maintenance
- motor efficiency increases over time
- completely enclosed motor casing prevents internal corrosion. Without an internal oil sump
- compact design with total freedom of 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 **AGP07F** with key and keyway shaft
- perfect control with Armak lever / remote control valves. including emergency stop or brake to machinery directive
- ATEX II cat. 2 GDcT5 and ATEX I M2 can be supplied, valid under ATEX operating parameters



The torque is developed by one power piston and is transferred to the output shaft with a second also contact free rotating piston by a synchronising gear train.

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



# Armak Geared Piston Air Motor

## Type AGP07F



### Technical Data for Motor AGP07FA at 6bar

Motor only without valves, FRL, silencer or other components

max. power	kW	8,0	airline lubrication short time operation	drop/min	8 - 12
speed at P <sub>max</sub>	rpm	1600	airline lubrication continuous operation	drop / min	6 – 8
torque at P <sub>max</sub>	Nm	50	ambient temperature	° C	-20 - +80
start torque	Nm	90	air inlet temperature max	° C	60
brief peak speed	rpm	2500	air inlet pressure, max	bar	8
max. cont. speed.	rpm	1800	mass	kg	60
suggested min. rpm	rpm	75	radial force middle of shaft	N	10000
air line connection		G 2"	axial force on shaft	N	100
<b>Motor versions</b>				<b>Part Number</b>	
Motor basic version AGP07FA (later mounting of Armak valves is not possible)				AGP07FA	
Motor with lever control valve LCV, biased CW				AGP07FJ	
Motor with lever control valve LCV, biased ACW				AGP07FK	
Motor with lever control valve LCV, unbiased				AGP07FL	
Motor with remote control valve RCV, unbiased				AGP07FR	
Motor with remote control valve RCV, biased CW				AGP07FV	
Motor with remote control valve RCV, biased ACW				AGP07FW	
<b>Accessories</b>				<b>Part Number</b>	
Remote control				on request	
Brake				on request	
Gear				on request	
Silencer				on request	
Service kit				on request	
Filter - Regulator - Lubricator				on request	

**ATEX II Kat. 2 GDC T5** and **ATEX I M2** can be supplied, but for ATEX I M2 only if short time motor speed does not exceed 1.800 rpm, motor air inlet temperature does not exceed 50°C, ambient temperature does not exceed 50°C, air inlet pressure does not exceed 4.5 bar, filtration is better than 45 μ

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## Type AGP07F



### Valves:

The motor AGP310A cannot retroactively be equipped with an Armak valve, because its air line connections are made for simple 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:

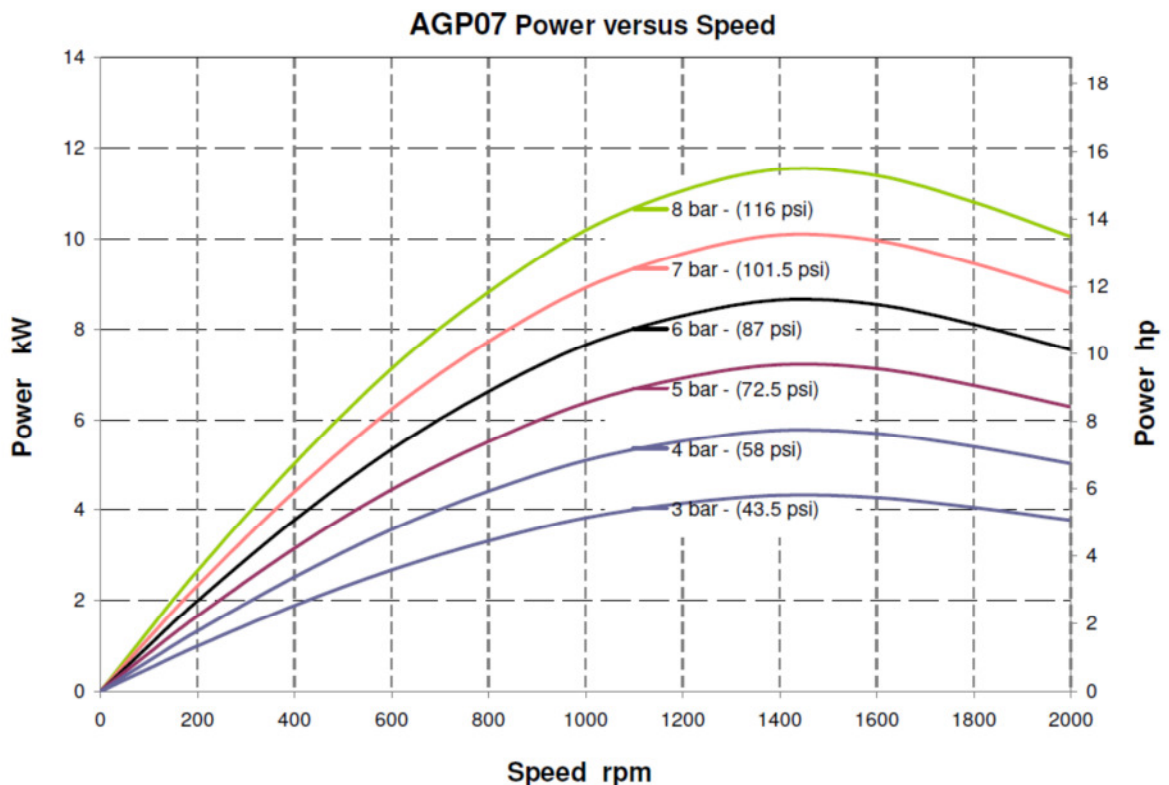
Armak Rotary Piston Air Motor AGP110E, AGP210A, AGP310A, AGP410A or AGP510A  
Armak Rotary Piston Air Motor AGP01BE, AGP04BE, AGP06BE, AGP10FA or AGP16FA

### 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 AGP07FA

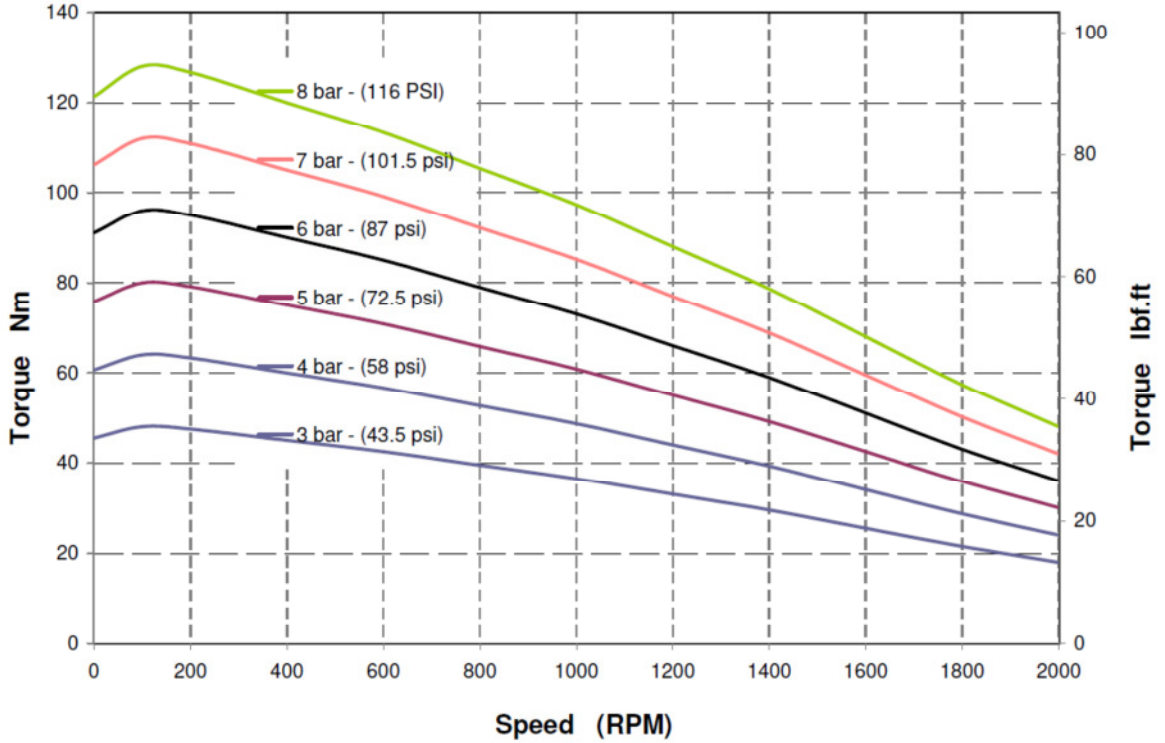
valid for 6 bar pressure difference across the motor



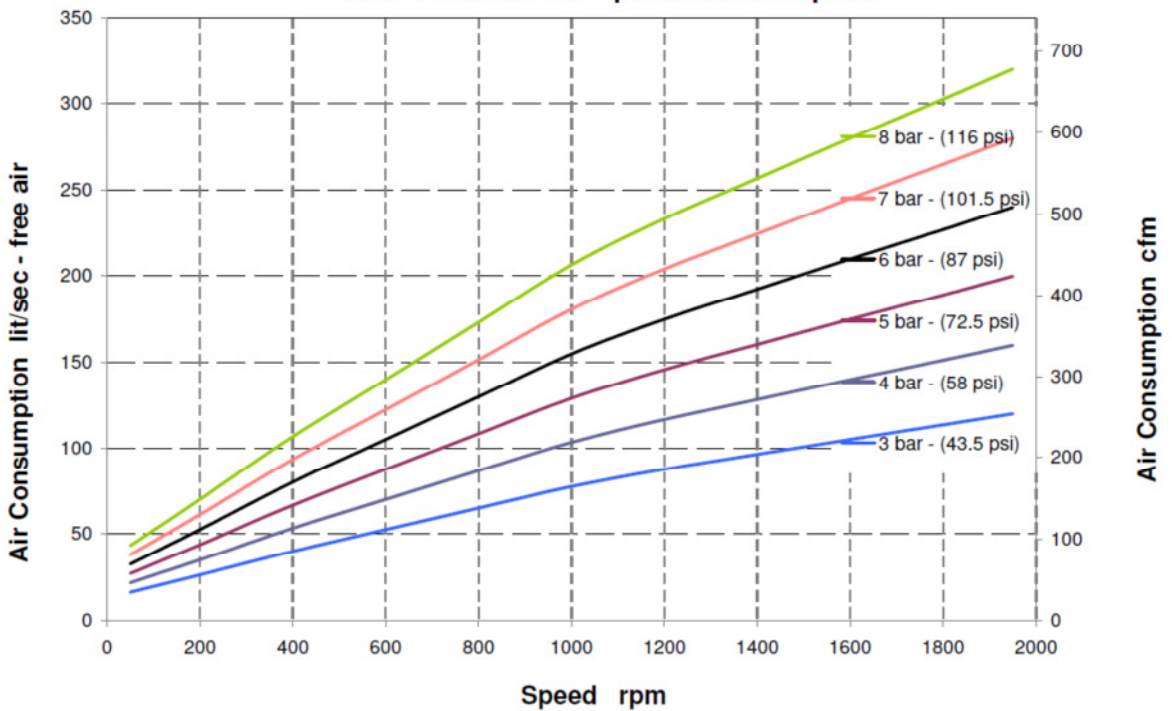
# Armak Geared Piston Air Motor Type AGP07F



AGP07 Torque versus Speed



AGP07 Air Consumption versus Speed



# Armak Rotary Piston Air Motor

## Type AGP07F



### Armak Motor AGP07FJ, AGP07FK or AGP07FL with Lever Control Valve

To prevent operator errors, the valve installation must fit the actual application.

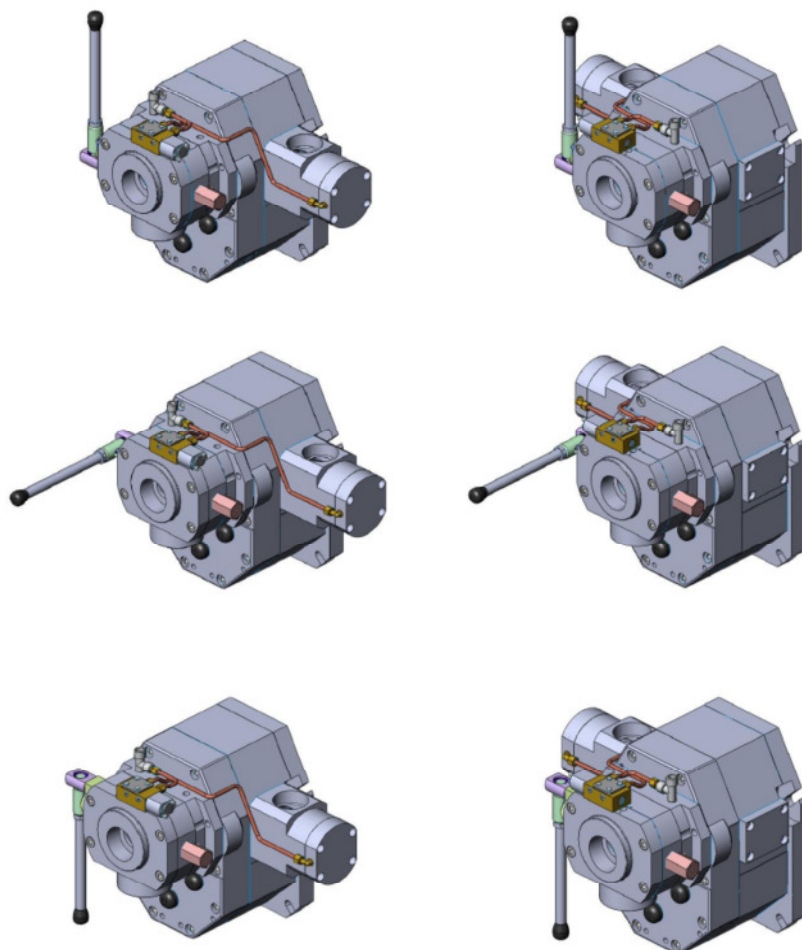
On all motors AGP01, AGP04, AGP06, AGP07, AGP10 or AGP16 the control lever can point upwards, forward or down.

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 users equipment, the air flow cross section in these check plates must 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 Type AGP07F



## Lieferprogramm

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



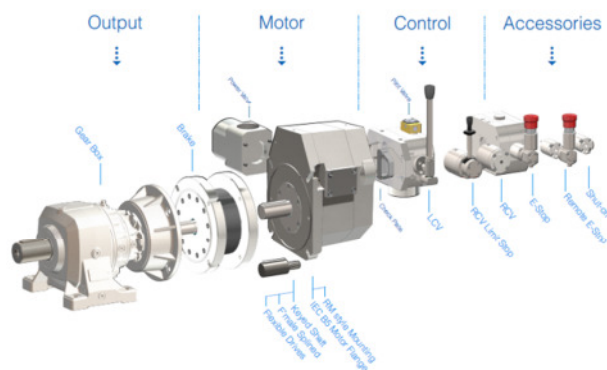
Earth Drilling Rig



Production Facility Hull, England



Armak Geared Piston Motors GP



We reserve the right for improvements without prior notice

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