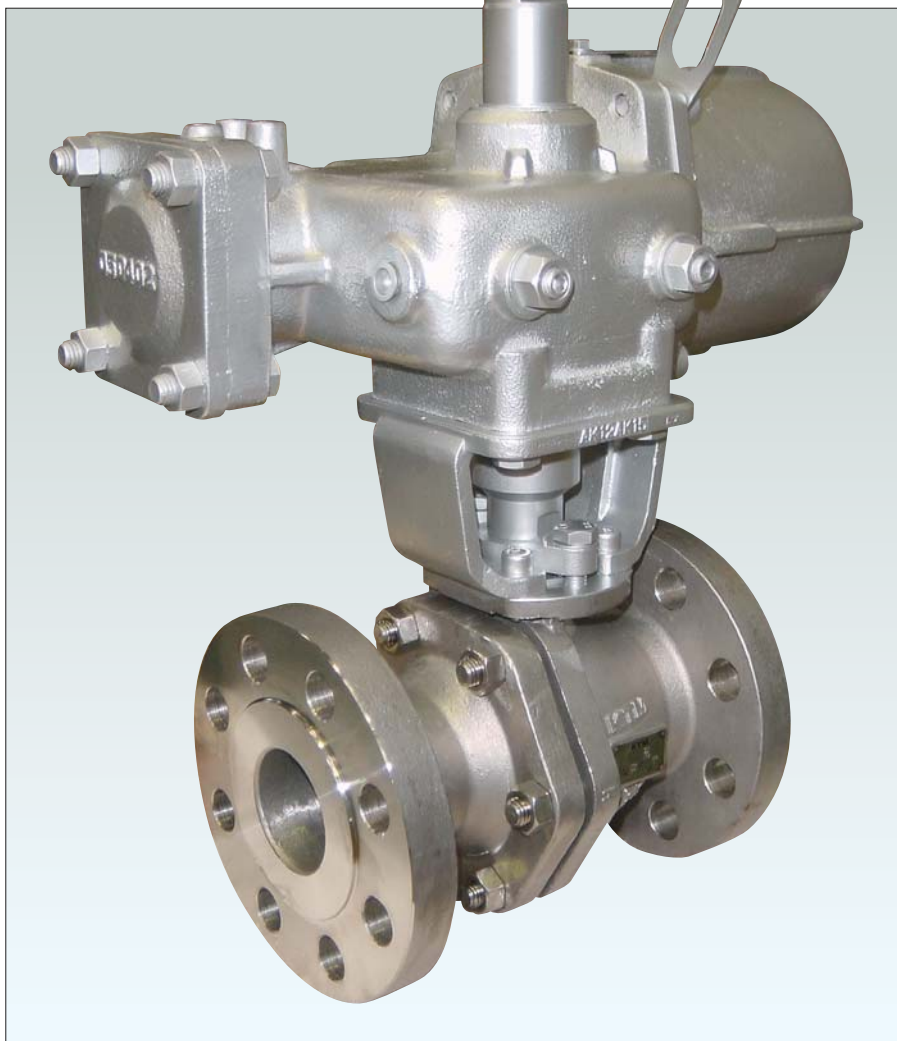


Rugged and highly reliable pneumatic actuator with outstanding strength and durability achieved through simple design

Features

- Compact rack and pinion design provides simple construction and constant output torque throughout the 90° stroke
- ISO 5211 mounting pattern to provide the greatest flexibility for valve adaptation
- NAMUR drive slot allows for simple and direct mounting of accessories
- Precision manufacturing of rack and pinion ensures efficient tooth engagement and provides positive piston thrust
- Minimal number of rotating parts for reduced air consumption
- Interchangeable spring return sets according to each operating pressure/torque:

AGN-S (Standard)	0.4~0.7MPa
AGN-R (Low pressure type)	0.21~0.5MPa
AGN-D (High torque type)	0.4~0.7MPa



Options

- Limit switch/proximity switch mounting
- Solenoid valve mounting
- Positioner mounting
- High-speed/high-frequency
- ESDV of CO gas type (for AGN13)
- Control valve
- Two step motion (double cylinder type/ positioner type)
- Partial stroke test

General Applications

- Designed for rugged and reliable service applications
- Suitable for actuation of quarter-turn ball, butterfly, rotary plug or damper style valves with light to medium duty applications in the chemical, petrochemical and power industries

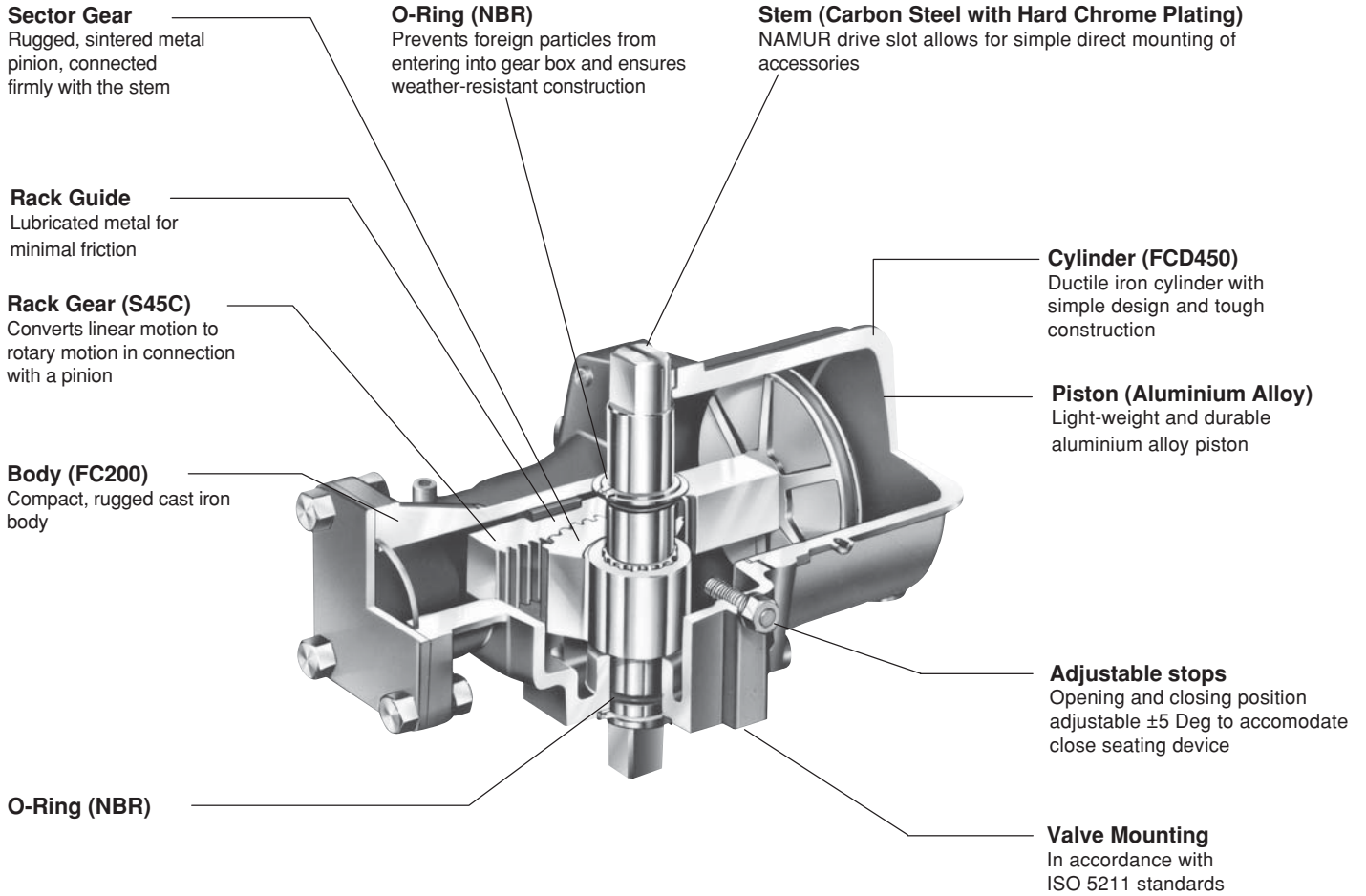
Technical Data

Actuator Model	
Double Acting	: AGN06, 09, 13
Spring Return*	: AGN06S, 09S, 13S
Supply Pressure	
Double Acting	: 0.3 to 0.7MPa
Spring Return*	: 0.4 to 0.7MPa
Temperature	: -20°C to 80°C (ambient temperature)
Output Torque	
Double Acting	: 28 to 265 N-m
Spring Return*	: 12 to 175 N-m

* Available in low pressure type (R) and high torque type (D). For more details please consult factory.

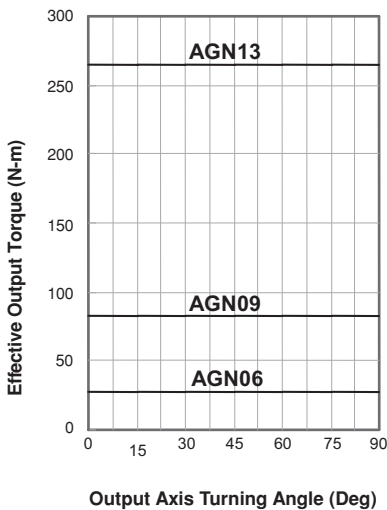
KTM Pneumatic Actuators

AGN Series (For Small and Medium Sized Valves)

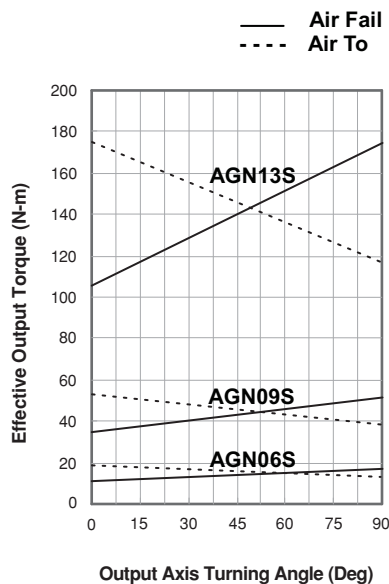


Output Torque Table

Double Acting Type



Spring Return Type*

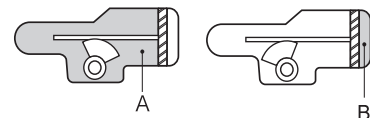


Note:
The above output table shows torque at the standard supply pressure of 0.4MPa.
*For spring return type: 0 Deg: Spring end / 90 Deg: Spring start

Cylinder Capacity (l)

Model	A	B	A + B
AGN06	0.21	0.16	0.37
AGN09	0.61	0.47	1.08
AGN13	1.90	1.50	3.40

For spring return type please refer to value B



Air Consumption V_D, V_S

The air consumption V_D, V_S shows the volume of air consumed in a certain time period. For the same size cylinder, air consumption increases in direct proportion to the operating time, and the consumption is determined by the formula as shown below. The total air consumption is equivalent to the sum obtained for the total units.

Air consumption of double acting cylinder (Nl):

$$V_D = (A+B) \{(P+0.1)/0.1\} n$$

Air consumption of spring return cylinder (Nl):

$$V_S = B \{(P+0.1)/0.1\} n$$

[Remarks]

V_D : Air consumption of double acting cylinder (Nl)

V_S : Air consumption of spring return cylinder (Nl)

A, B : Cylinder capacity (l)

P : Supply pressure (MPa)

n : Operating cycles in a time period (One cycle means one reciprocating action)

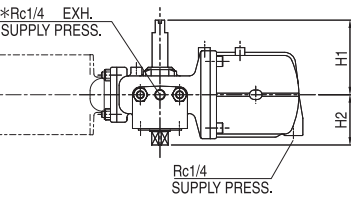
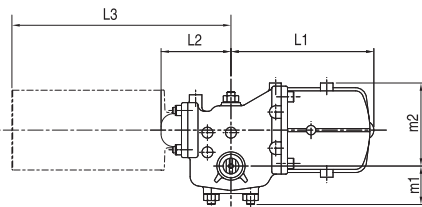
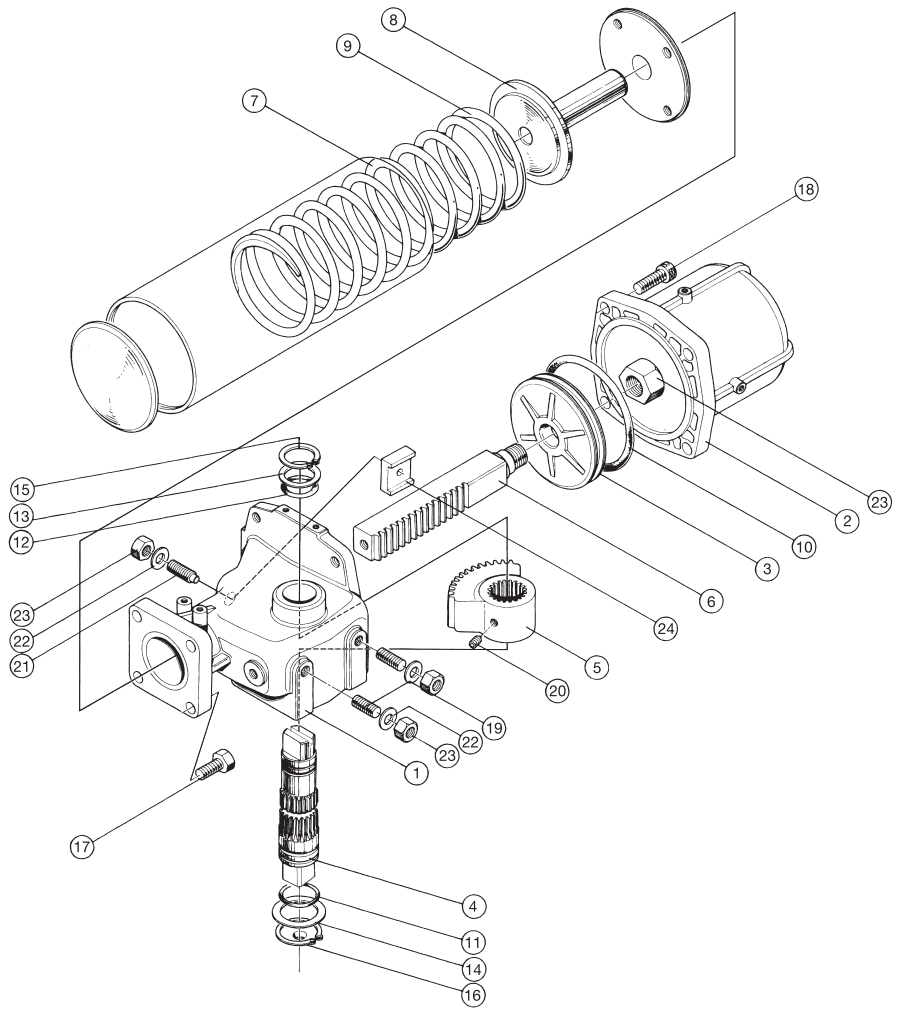
KTM Pneumatic Actuators

AGN Series (For Small and Medium Sized Valves)

Parts List

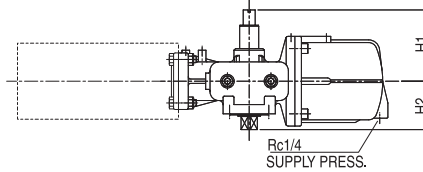
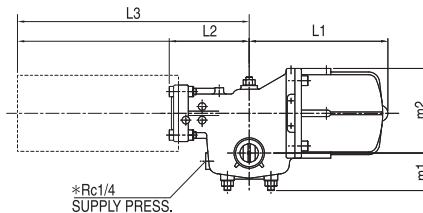
No.	Parts Name
1	Body
2	Cylinder
3	Piston
4	Stem
5	Sector Gear
6	Rack
7*	Spring Case
8*	Spring Retainer
9*	Spring
10	O-Ring
11	O-Ring
12	O-Ring
13	Thrust Bearing
14	Thrust Bearing
15	Snap Ring
16	Snap Ring
17	Hexagonal Bolt
18	Socket Head Bolt
19	Set Screw
20	Set Screw
21	Set Screw
22	Gasket
23	Nut
24	Rack Guide

* No. 7, 8 and 9 show spring set



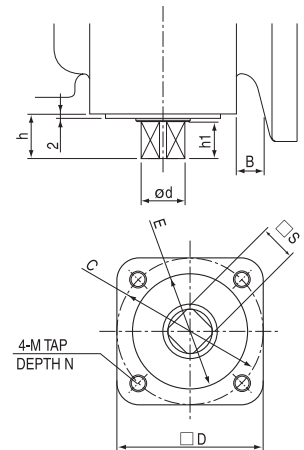
* Exhaust port for spring return type

AGN06 (S), AGN09 (S)



* Exhaust port for spring return type

AGN13 (S)



Bottom Works

AGN06 ~ AGN13 (S) Dimensions (mm)

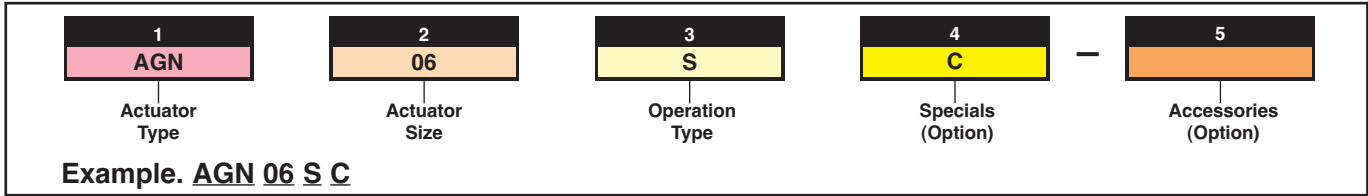
Model	m1	m2	L1	L2	(L3)	H1	H2	D	Ød	S	h	h1	C	E	M	N	B	ISO 5211	Weight (kg)
AGN06 (S)	42	79	137	64	(194)	78	56	60	18	14	18	14	50	35	M6	9	7.0	F05	3.4 (5.9)
AGN09 (S)	49	106	192	89	(279)	95	64	70	21	17	21	17	70	55	M8	12	13.5	F07	6.4 (11.7)
AGN13 (S)	70	156	255	147	(426)	131	89	96	30	24	29	24	102	70	M10	16	14.0	F10	18.9 (31.9)

Note:

Data in parenthesis () apply to spring return type.

Available also for spring return in low pressure type (R) and high torque type (D). For more details please consult factory.

KTM Model Coding System



1
Actuator Type
AGN

2
Actuator Size
06, 09, 13

3	
Operation Type	Description (Supply Pressure)
Blank	Double acting type (0.3 to 0.7MPa)
S	Spring return type - Standard (0.4 to 0.7MPa)
R	Spring return type - Low pressure type (0.21 to 0.5MPa)
D	Spring return type - High torque type (0.4 to 0.7MPa)

4	
Specials (Option)	Description
Blank	No specials
C	For control
Q	High speed / frequency (500,000 cycles): Available for double acting type only

5	
Accessories (Option)	Description
Blank	Without any accessories
H	For double acting type with manual override handle
CO	ESDV of CO gas type: Available for AGN13 only
PS	Partial stroke test