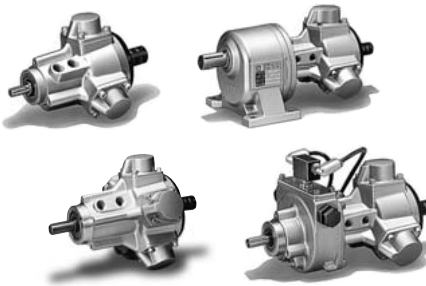


Air motor with free mounting direction because of grease-mounted system

- Mounting direction is free with grease-mounted system. (The fluid lubrication with air lubricator is necessary.)
- A built-in balancer mechanism, Operate with less vibration.



● Standard ● With brake ● With decelerator

Specifications

Item Model number		Model	Deceleration ratio	At max. output (at 0.5 MPa)				Stopping torque	Starting torque	Brake torque	Allowable axial load		Weight				
				Output	Torque	Rotation speed	Air consumption				Radial load	Thrust load	Basic style	Flange type	Foot type		
																W	N·m
TAM4-010	*	Standard	1/1	73.5	0.637	1100	200	1.18	0.686	—	0.098	0.059	1.45	1.5	2.1		
	*G005	With decelerator	1/5	66.2	66.2	200		2.84	220		4.90	2.94	0.245	0.147	—	4.0	3.5
	*G010		1/10					5.69	110		9.81	5.88	0.539	0.245			
	*G015		1/15					8.53	73.3		15.7	8.83	0.785	0.343			
	*G020		1/20					11.5	55		20.6	11.8	1.08	0.441			
TAM4-015	*	Standard	1/1	125	1.37	900	260	2.94	1.96	—	0.137	0.098	2.5	2.6	3.4		
	*B	With brake								3.24			4.3	4.4	5.2		
	**G005		1/5	110	110	260	12.7	8.83	14.7	0.392	0.245	(8.0)	(8.5)				
	**G010		1/10				11.8	90	26.5	17.7	29.4			0.785	0.343		
	**G015		1/15				17.7	60	39.2	26.5	44.1			1.08	0.539		
	**G020		1/20				23.5	45	53.0	35.3	58.8			1.37	0.686		
	**G030	1/30	35.3	30	78.5	53.0	88.3	2.16	1.13	—	8.7 (10.0)	8.2 (10.5)					
	**G040	1/40	47.1	22.5	106	70.6	118	2.26	1.23								
	**G050	1/50	58.8	18	132	79.4	147	2.35	1.32								
	**G060	1/60	70.6	15	157	106	177	2.45	1.37								
	**G080	1/80	93.2	11.2	206	139	235	2.55	1.47	11.7 (13.0)	11.2 (13.5)						
	**G100	1/100	118	9	250	175	283	4.61	2.26								
	**G120	1/120	137	7.5	300	206	339	4.71	2.55								
	**G160	1/160	176	5.6	373	261	453	5.00	2.84								
	**G200	1/200	233	4.5	500	350	567	5.10	3.14								

The parenthesized values are the weights of the type with brake and decelerator.

Notes) ● For TAM4-010 Series air motors with a deceleration ratio of more than 1/20, contact us.

- The above specifications are performance values at an ambient temperature of 20°C. If the ambient temperature lowers, the rotation speed reduces due to change in grease viscosity.
- The table shows the performance values of the air motors obtained when the pressure on the exhaust side is the atmospheric pressure.

Specifications

Model number \ Item		Model	Deceleration ratio	At max. output (at 0.5 MPa)				Stopping torque	Starting torque	Brake torque	Allowable axial load		Weight		
				Output	Torque	Rotation speed	Air consumption				Radial load	Thrust load	Basic style	Flange type	Foot type
TAM4-030	*	Standard	1/1	228	2.94	750	400	5.88	4.71	—	0.196	0.137	4.6	4.8	6.4
	*B	With brake			6.47	0.196		0.137	7.6	7.8	9.4				
	**G005	1/5 1/10 1/15 1/20 1/30			12.7	150		26.5	20.6	29.4	0.490	0.294	10.5 (13.5)	10.0 (13.0)	
	**G010		26.5	75	53.0	41.2	58.8	0.981	0.441						
	**G015		39.2	50	79.4	61.8	88.3	1.37	0.637						
	**G020		53.0	37.5	106	82.4	118	1.77	0.834						
	**G030	With decelerator/ With brake and decelerator	78.5	25	159	124	177	3.97	1.42	—	14.0 (17.0)	13.5 (16.5)			
	**G040		1/40	106	18.7	212	165	235	4.17				1.57		
	**G050		1/50	199	132	15	265	206	294				4.32	1.67	
	**G060		1/60	157	12.5	318	247	353	4.41				1.81		
	**G080	1/80	203	9.3	402	314	471	4.51	1.96	20.5 (24.5)	20.0 (24.0)				
	**G100	1/100	250	7.5	490	392	549	6.47	2.55						
	**G120	1/120	300	6.2	598	471	657	6.62	2.75						
	**G160	1/160	396	4.6	785	628	873	6.91	2.94						
	**G200	1/200	500	3.7	981	785	1100	7.06	3.14						

The parenthesized values are the weights of the models with brake and decelerator.

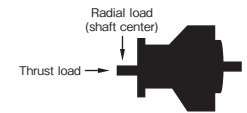
- Notes) ● The above specifications are performance values at an ambient temperature of 20°C. If the ambient temperature lowers, the rotation speed reduces due to change in grease viscosity.
- The table shows the performance values of the air motors obtained when the pressure on the exhaust side is the atmospheric pressure.

Common conditions

- Working fluid : Air
- Rated pressure : 0.5 MPa
- Working pressure range : 0.2 to 0.6 MPa
- Lubrication : JIS K2213 Class 1 (non-additive turbine oil ISO VG32) or its equivalent
- Ambient temperature : -10 to +70°C (No freezing)
- Paint color : Metallic silver gray
- Lubricant : Internal grease—Air motor body: DAPHNE EPONEX EP-No.1 (IDEMITSU), grease for high load
- Continuous operation : When using the motor continuously without suspension, use it at 80% or less of the rotation speed at max. output.
- Recommended rotation speed range: (0.2 to 1)×rotation speed at max. output

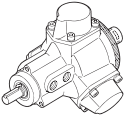
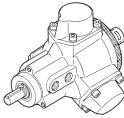
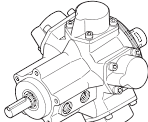
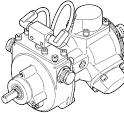
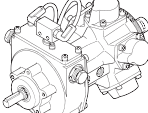
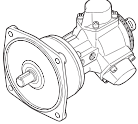
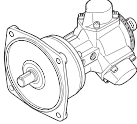
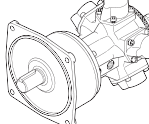
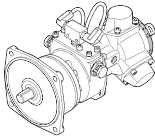
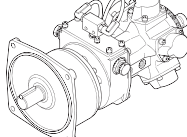
Allowable axial load

The allowable axial load shown in the above specification table shows the allowable value of the following load.



● How to order

When placing an order, specify the model number shown below.

Series Model	TAM4-010	TAM4-015	TAM4-030
Standard	 TAM4-010 S ①	 TAM4-015 S ①	 TAM4-030 S ①
With brake	_____	 TAM4-015 S B ① With brake	 TAM4-030 S B ① With brake
With decelerator	 TAM4-010 F G O20 ① With decelerator ② *Mounting style The basic style (S) is not available.	 TAM4-015 F G O20 ① With decelerator ② *Mounting style The basic style (S) is not available.	 TAM4-030 F G O20 ① With decelerator ② *Mounting style The basic style (S) is not available.
With brake and decelerator	_____	 TAM4-015 F BG O20 ① With brake and decelerator ② *Mounting style The basic style (S) is not available.	 TAM4-030 F BG O20 ① With brake and decelerator ② *Mounting style The basic style (S) is not available.

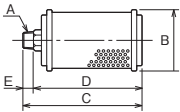
Explanation of Symbols

①	Mounting style			
	S	Basic style		
	F	Flange type		
	L	Foot type		
②	Deceleration ratio			
	005	1/5	060	1/60
	010	1/10	080	1/80
	015	1/15	100	1/100
	020	1/20	120	1/120
	030	1/30	160	1/160
	040	1/40	200	1/200
	050	1/50		

Notes) ● For TAM4-010 Series air motors with a deceleration ratio of more than 1/20, contact us.
● Any air motor will be delivered without a silencer mounted.

Accessory **SZZ**

● Auto muffler
A muffler which deadens the exhaust noise but does not deteriorate the air motor performance



Dimensional Table

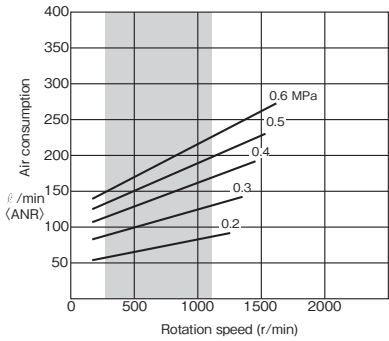
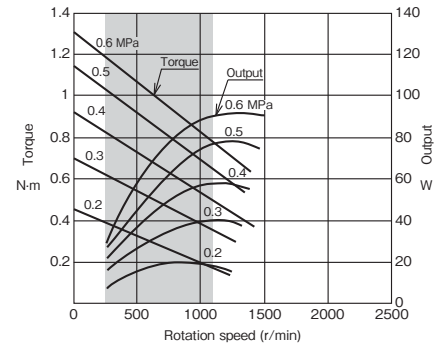
Model number	A	B	C	D	E	Weight(kg)	Exhaust area(mm ²)
M02	R1/4	48	102	89	13	0.14	4580
M00	R3/8	67	121	108	13	0.23	7870

Unit: mm

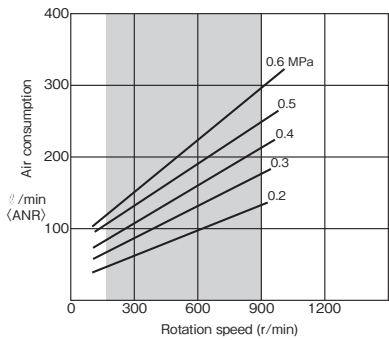
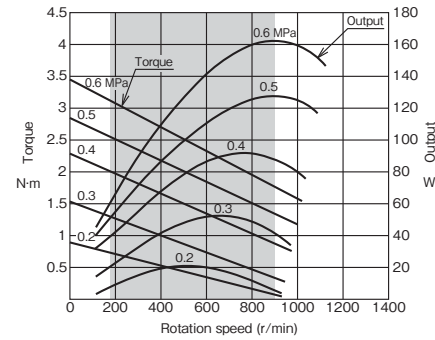
Performance Curves (at deceleration ratio of 1:1)

Recommended rotation speed range

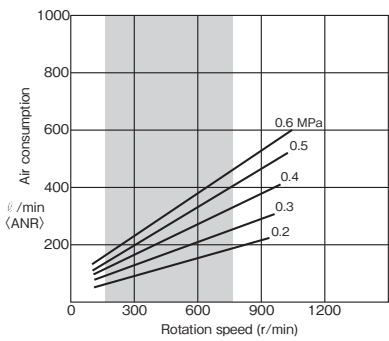
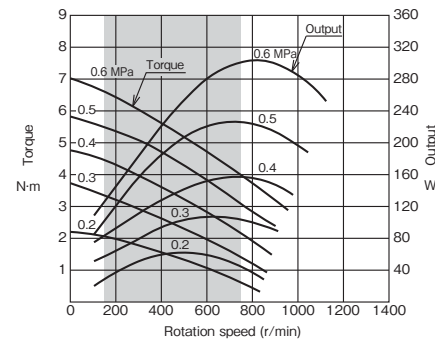
TAM4-010



TAM4-015



TAM4-030

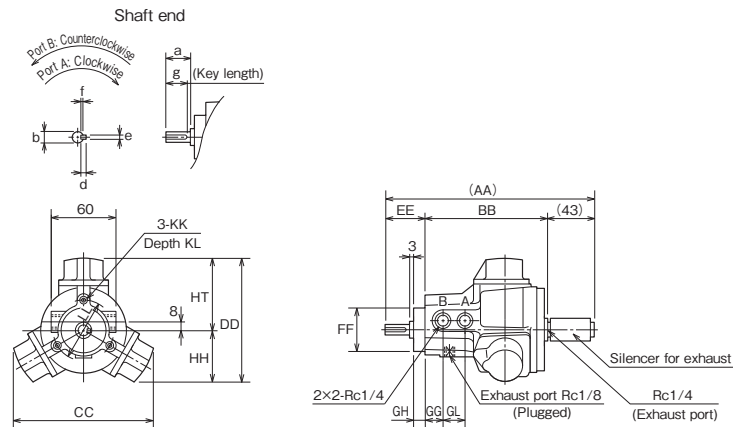


TAM4/TTAM410A CAD/DATA
TTAM415A is available.



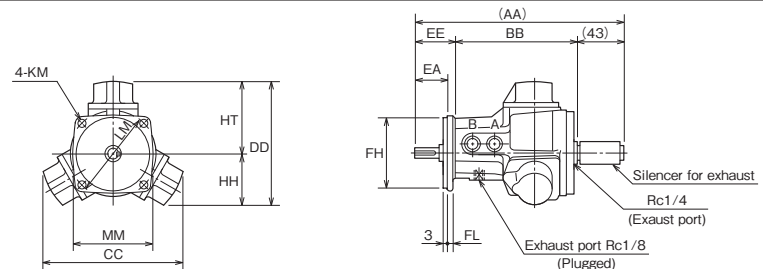
TAM4-010·015/Standard

Basic style
TAM4-010S
TAM4-015S



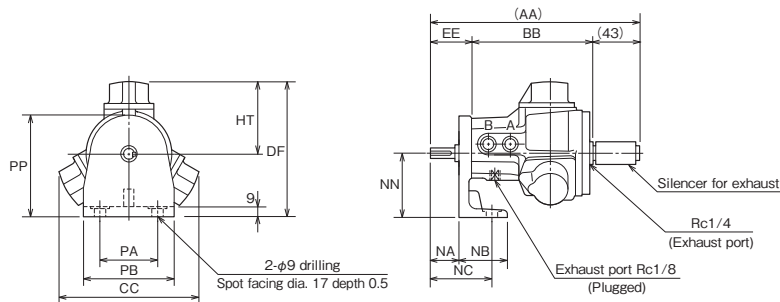
Flange type

TAM4-010F
TAM4-015F



Foot type

TAM4-010L
TAM4-015L



Dimensional Table

Symbol Model	AA	BB	CC	DD	DF	EA	EE	FF	FH	FL	GG	GH	GL	HH	HT	KK	KL	KM
TAM4-010	192	113	130	115	127	29	36	φ42h7	φ68h7	5	17	10	20	48	67	M5×0.8	8	φ6
TAM4-015	225	137	164	142	152	36	45	φ48h7	φ78h7	7	19	12	28	60	82	M6×1	12	φ7

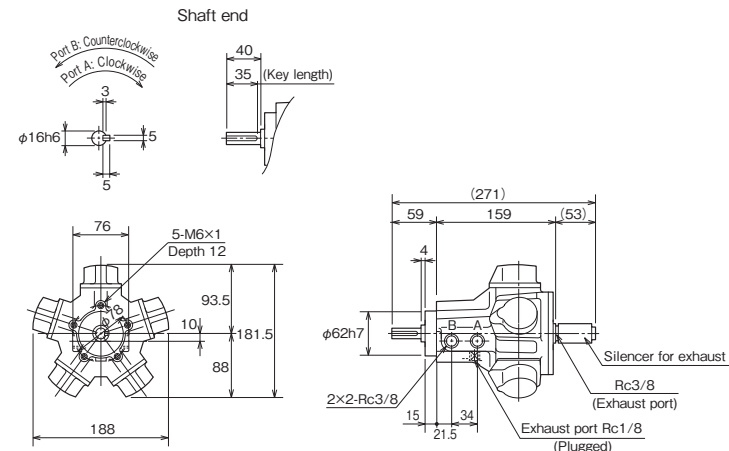
Symbol Model	LL	LM	MM	NA	NB	NC	NN	PA	PB	PP	Shaft end						
											a	b	d	e	f	g	
TAM4-010	φ55	φ80	□72	26	45	56	60±0.1	50	80	94	23	φ10h6	3	3	1.8	20	
TAM4-015	φ62	φ92	□86	33	50	63	70±0.1	70	100	110	30	φ12h6	4	4	2.5	27	

TAM4/TTAM430A CAD/DATA
is available.



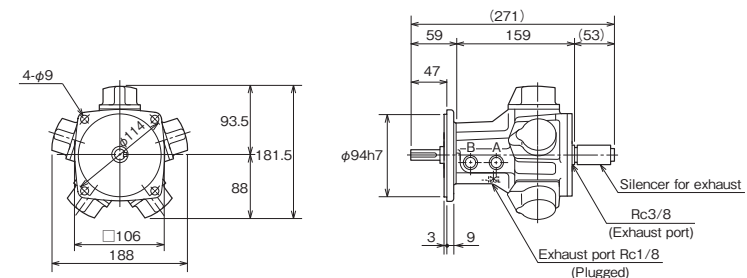
TAM4-030/Standard

Basic style
TAM4-030S



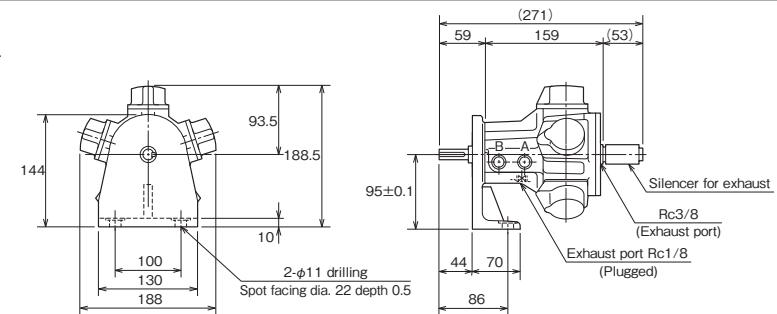
Flange type

TAM4-030F



Foot type

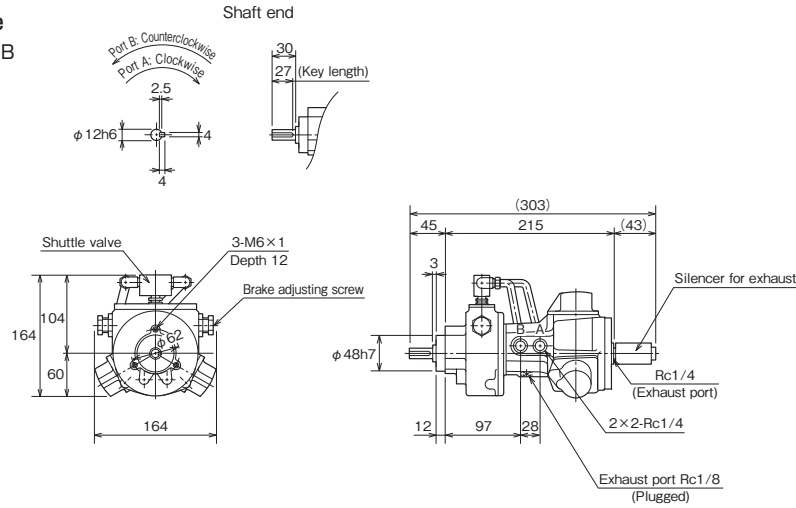
TAM4-030L



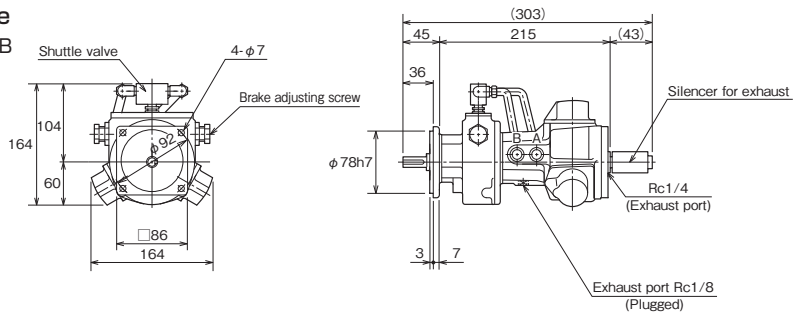
CAD/DATA
TAM4/TTAM415C is available. 

TAM4-015/With brake

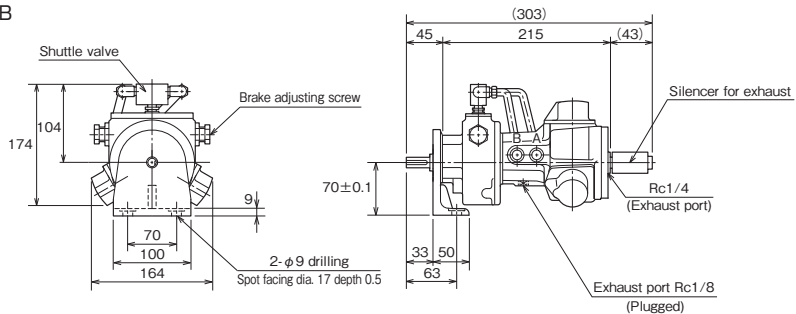
Basic style
TAM4-015SB



Flange type
TAM4-015FB



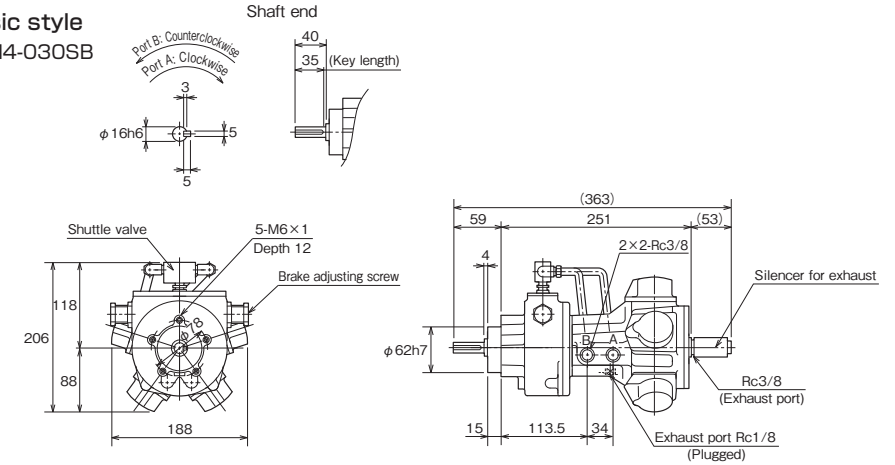
Foot type
TAM4-015LB



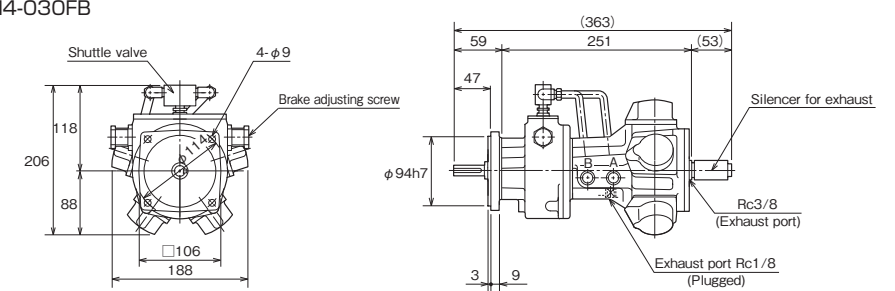
CAD/DATA
TAM4/TTAM430C is available. 

TAM4-030/With brake

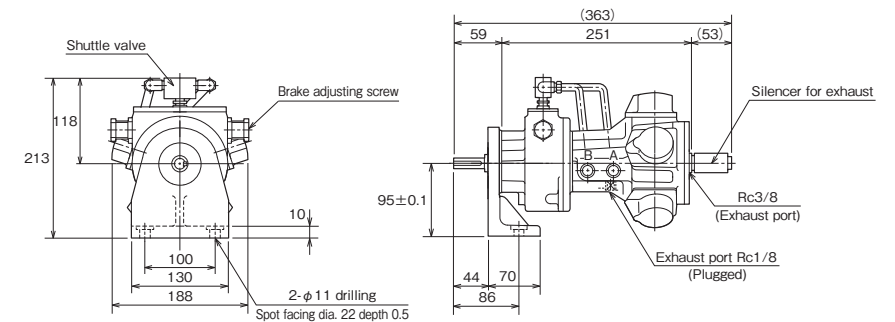
Basic style
TAM4-030SB



Flange type
TAM4-030FB



Foot type
TAM4-030LB



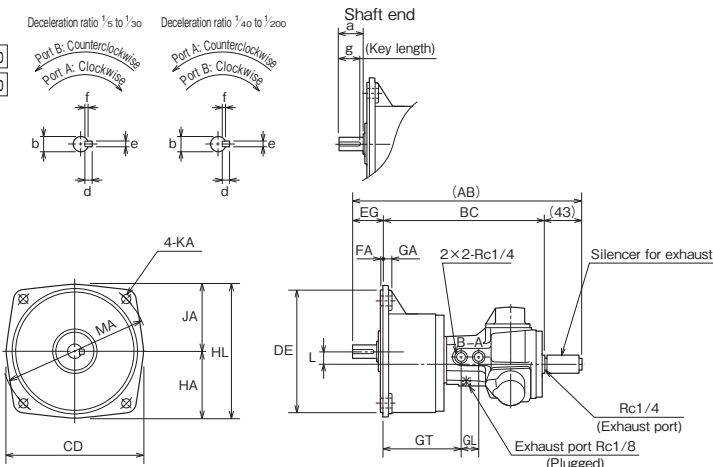
TAM4/TTAM410B CAD/DATA
TTAM415B is available.



TAM4-010·015/With decelerator

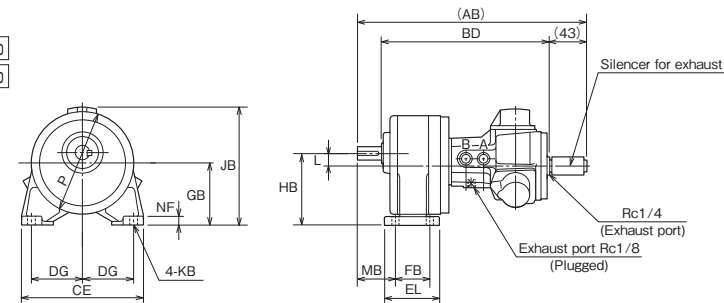
Flange type

TAM4-010FG Deceleration ratio
TAM4-015FG Deceleration ratio

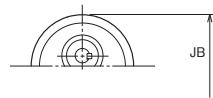


Foot type

TAM4-010LG Deceleration ratio
TAM4-015LG Deceleration ratio



TAM4-015 with deceleration ratio of 100, 120, 160, or 200



Dimensional Table

Model number		AB	BC	BD	CD	CE	DE	DG	EG	EL	FA	FB	GA	GB	GL	GT	HA
Model	Deceleration ratio																
TAM4-010*G	005 010 015 020	272	194	199	154	134	φ145h7	55	35	64	3	40	10	68.5	20	98	80
	005 010 015 020	323	233	240	164	154	φ148h7	65	47	90	4	65	12	71	28	115	89
	030 040 050 060 080	340	247	252	186	175	φ170h7	70	50	125	4	90	15	86.5	28	128	105.5
TAM4-015*G	100 120 160 200	360	257	262	215	208	φ180h7	85	60	168	4	130	15	101.5	28	139	126.5

Model number		HB	HL	JA	JB	KA	KB	L	MA	MB	NF	P	Shaft end					
Model	Deceleration ratio												a	b	d	e	f	g
TAM4-010*G	005 010 015 020	85	157	77	135.5	φ11	φ9	16.5	φ170	45	10	φ112	30	φ18h6	6	6	3.5	27
	005 010 015 020	90	171.5	82.5	153	φ11	φ11	19	φ185	55	12	φ125	40	φ22h6	6	6	3.5	35
	030 040 050 060 080	110	198.5	93	169	φ11	φ11	23.5	φ215	65	15	φ152	45	φ28h6	7	8	4	40
TAM4-015*G	100 120 160 200	130	234	107.5	198	φ13	φ13	28.5	φ250	70	18	φ184	55	φ32h6	8	10	5	50

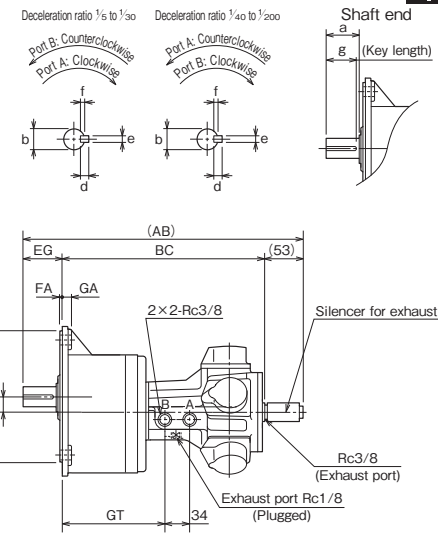
TAM4/TTAM430B CAD/DATA
is available.



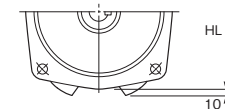
TAM4-030/With decelerator

Flange type

TAM4-030FG Deceleration ratio



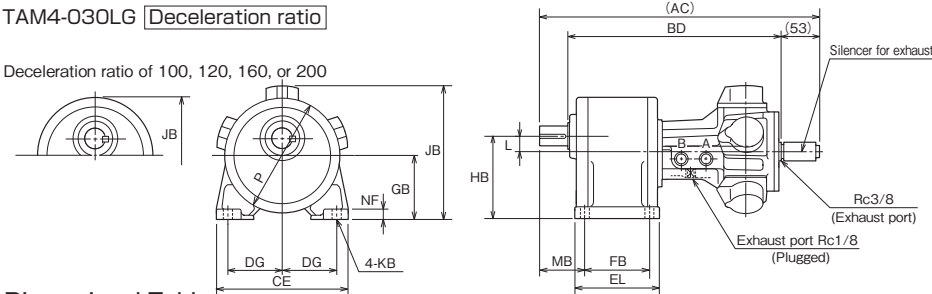
Deceleration ratio of 005, 010, 015, or 020



Foot type

TAM4-030LG Deceleration ratio

Deceleration ratio of 100, 120, 160, or 200



Dimensional Table

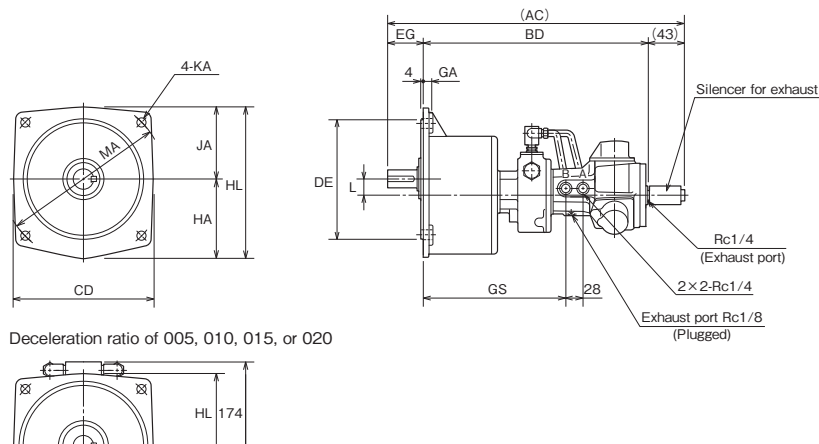
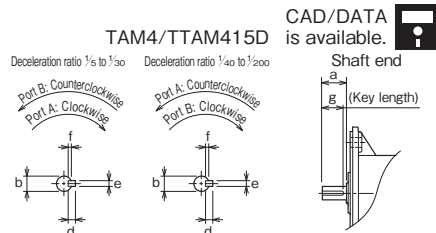
Model number		AB	AC	BC	BD	CD	CE	DE	DG	EG	EL	FA	FB	GA	GB	GT
Model	Deceleration ratio															
TAM4-030*G	005 010 015 020	374	374	271	276	186	175	φ170h7	70	50	125	4	90	15	86.5	133
	030 040 050 060 080	403	403	290	295	215	208	φ180h7	85	60	168	4	130	15	101.5	152
	100 120 160 200	431	428	307	310	270	254	φ230h7	105	71	196	5	150	18	116	170

Model number		HA	HB	HL	JA	JB	KA	KB	L	MA	MB	NF	P	Shaft end					
Model	Deceleration ratio													a	b	d	e	f	g
TAM4-030*G	005 010 015 020	105.5	110	198.5	93	180	φ11	φ11	23.5	φ215	65	15	φ152	45	φ28h6	7	8	4	40
	030 040 050 060 080	126.5	130	234	107.5	198	φ13	φ13	28.5	φ250	70	18	φ184	55	φ32h6	8	10	5	50
	100 120 160 200	149	150	284	135	230	φ18	φ15	34	φ310	90	20	φ218	65	φ40h6	8	12	5	60

TAM4-015/With brake and decelerator

Flange type

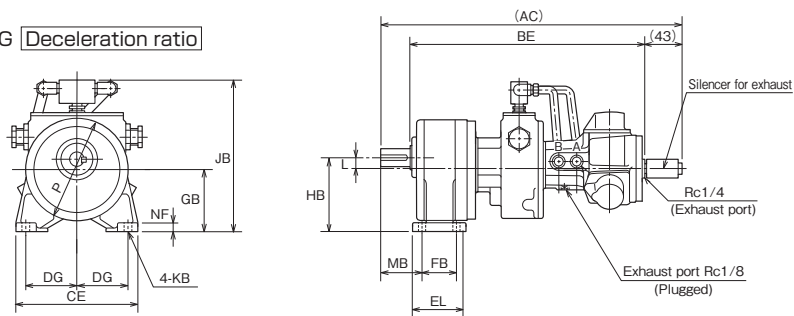
TAM4-015FBG Deceleration ratio



Deceleration ratio of 005, 010, 015, or 020

Foot type

TAM4-015LBG Deceleration ratio



Dimensional Table

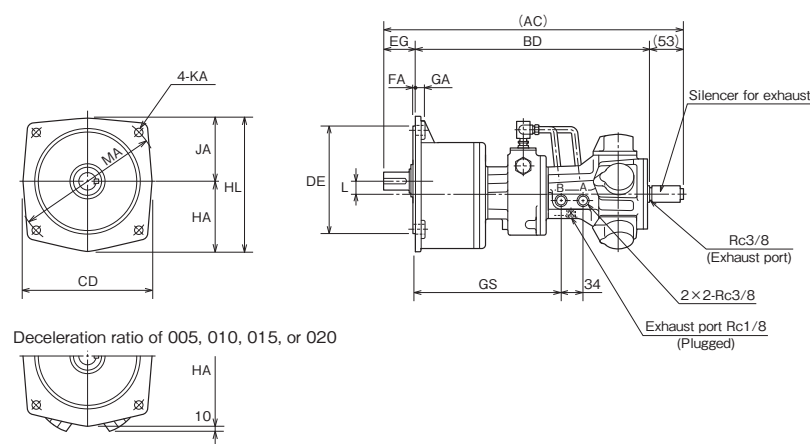
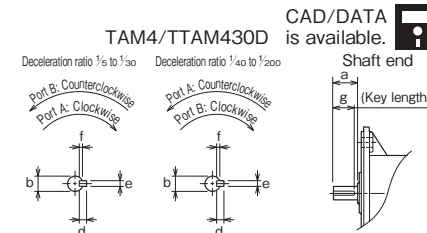
Model number		AC	BD	BE	CD	CE	DE	DG	EG	EL	FB	GA	GB	GS	HA	HB
Model	Deceleration ratio															
TAM4-015*BG	005 010 015 020	401	311	318	164	154	φ148h7	65	47	90	65	12	71	193	89	90
	030 040 050 060 080	417	324	329	186	175	φ170h7	70	50	125	90	15	86.5	206	105.5	110
	100 120 160 200	438	335	340	215	208	φ180h7	85	60	168	130	15	101.5	217	126.5	130

Model number		HL	JA	JB	KA	KB	L	MA	MB	NF	P	Shaft end					
Model	Deceleration ratio											a	b	d	e	f	g
TAM4-015*BG	005 010 015 020	171.5	82.5	175	φ11	φ11	19	φ185	55	12	φ125	40	φ22h6	6	6	3.5	35
	030 040 050 060 080	198.5	93	191	φ11	φ11	23.5	φ215	65	15	φ152	45	φ28h6	7	8	4	40
	100 120 160 200	234	107.5	206	φ13	φ13	28.5	φ250	70	18	φ184	55	φ32h6	8	10	5	50

TAM4-030/With brake and decelerator

Flange type

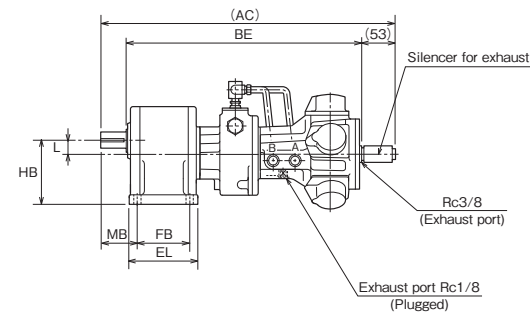
TAM4-030FBG Deceleration ratio



Deceleration ratio of 005, 010, 015, or 020

Foot type

TAM4-030LBG Deceleration ratio

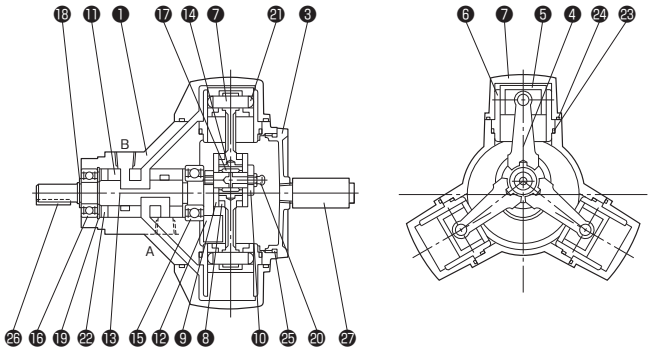


Dimensional Table

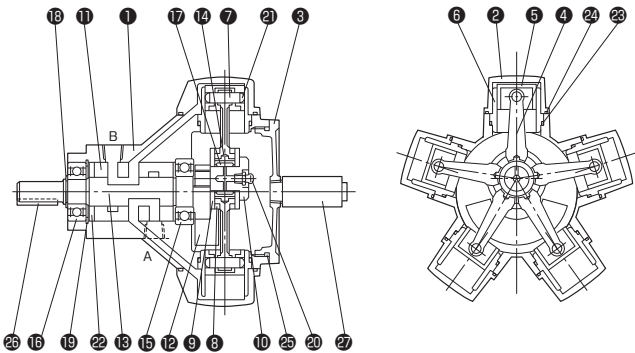
Model number		AC	BD	BE	CD	CE	DE	DG	EG	EL	FA	FB	GA	GB	GS	HA	HB
Model	Deceleration ratio																
TAM4-030*BG	005 010 015 020	466	363	368	186	175	φ170h7	70	50	125	4	90	15	86.5	225	105.5	110
	030 040 050 060 080	495	382	387	215	208	φ180h7	85	60	168	4	130	15	101.5	244	126.5	130
	100 120 160 200	520	396	402	270	254	φ230h7	105	71	196	5	150	18	116	259	149	150

Model number		HL	JA	JB	KA	KB	L	MA	MB	NF	P	Shaft end					
Model	Deceleration ratio											a	b	d	e	f	g
TAM4-030*BG	005 010 015 020	198.5	93	205	φ11	φ11	23.5	φ215	65	15	φ152	45	φ28h6	7	8	4	40
	030 040 050 060 080	234	107.5	220	φ13	φ13	28.5	φ250	70	18	φ184	55	φ32h6	8	10	5	50
	100 120 160 200	284	135	234	φ18	φ15	34	φ310	90	20	φ218	65	φ40h6	8	12	5	60

TAM4-010·015



TAM4-030



Parts List

These figures are the sectional drawings of the standard.

No.	Name	Material	Quantity
1	Casing	Aluminum alloy casting	1
2	Cylinder cover	Aluminum alloy die-cast	3 (5)
3	End cover	Synthetic resin	1
4	Connecting rod	Aluminum alloy die-cast	3 (5)
5	Piston	Bronze casting	3 (5)
6	Sleeve	Grey cast iron	3 (5)
7	Piston pin	Carbon tool steel	3 (5)
8	Ring	Carbon steel for machine structural use	2
9	Thrust washer	Carbon steel for machine structural use	2
10	Crank pin	Chromium-molybdenum steel	1
11	Valve bush	Grey cast iron	1
12	Balance weight	Carbon steel for machine structural use	1
13	Shaft	Chromium-molybdenum steel	1
14	Liner	Synthetic resin	3 (5)

The parenthesized quantities apply to TAM4-030.

No.	Name	Material	Quantity
15	Bearing	_____	1
16	Bearing	_____	1
17	Needle bearing	_____	1
18	Snap ring	_____	1
19	Snap ring	_____	1
20	Grease nipple	_____	1
21	Copper rivet	_____	6 (10)
22	Oil seal	Nitrile rubber	1
23	O-ring	Nitrile rubber	3 (5)
24	O-ring	Nitrile rubber	3 (5)
25	O-ring	Nitrile rubber	1
26	Parallel single key	_____	1
27	Silencer	_____	1