SAMT®

Specialised Air Motors and Transmission

TONSON®

New South Wales

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Piston Air Motors

SAMT®
Specialised Air Motors and Transmission

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Specialised Air Motors & Transmission (SAMT) - incorporating TONSON - was founded in 1966 and provides efficient solutions and equipment to all major industries including mining, chemical, food, paper, plastic, power transmission, manufacturing and pharmaceutical.

Our commitment to you is best service, quick lead times and very competitive prices.

Innovation & Quality

Specialised Air Motors & Transmission is committed to providing clever solutions for all hazardous environments and continues to develop smart ways to meet requirements from all different industries; our products meet CE standards ISO9002, ISO9001 and patents are registered globally including USA, Taiwan and China.

Unlike other conventional methods our products mainly use air instead of electricity as the source of power. This eliminates the chance of electricity shock and fire, which are the most crucial factors for industries involved in chemical, flammable or volatile contents.

Specialised Air Motors & Transmission products include air/electric motors, air/electric mixers and air fans which are engineered to meet the highest standards featuring 100% explosion-proof, low air consumption, light weight, high torque, reversible step less speed control, easy maintenance and various mounting methods. And can be used in very harsh conditions such as humidity, high temperature and flammable environments.

Products & Services

SAMT's other popular products include Pressure Tanks up to 200L (with and without integrated mixer), spray guns, pneumatic double diaphragm pumps, vertical pumps, magic drum carriers, non-spark drum openers, propellers, plus many more exciting and innovative products.

We also have the technical capability and expertise to provide complete power transmission solutions to meet your specific requirements, including full engineering assistance with design, selection and site installation. We also specialise in the supply of all types of Industrial gearboxes including Helical, Worm, Bevel-Helical, Bevel, screw jacks and planetary. All are interchangeable with other internationally recognised brands.

SAMT can also customise any product to suit your specific requirements and will investigate the possibilities of developing new products to satisfy your special specifications.

Features and applications

Piston Air Motor features include:

- 100% Explosion-proof
- Stalling Safety
- Step less Speed Control
- Never Burn Out
- Self-Sealing & Cool Running
- Positive Start
- Mounting Flexibility (Flange, Foot, Hub, IEC, Nema, Custom Mounting Avaliable)
- All Plane Operation
- Toleration of Environment
- High Start Torque
- Instantly Reversible
- Rugged Design
- Intrinsically safe in hazardous environment (ex. Mines, Petrochemical, Volatile atmosphere)
- Modular Design: All motors may be equipped with Gear Reducer, Brake, Hand, Remote, Pendant control as options

Piston Air Motor applications are unlimited including:

- Hoist / Winches
- Pump Drives
- Automation Devices
- Hose Reels
- Conveyor Drives
- Choppers / Grinders
- Turntables
- Mixing Equipment
- Food / Pharmacy Packaging
- Lifting Device
- Mining Equipment

NEW

Chromium-plated
Also available
Full Stainless Steel Construction

Air Motors have many Patterns and Mounting to meet different application, such as Dual-Shaft (DS), Air Mixer-reserved. Mounting methods including Flange, Foot, Butterfly, IEC, NEMA, and many special flange plates can be customized.
Also other materials:
Stainless Steel & Chromium-plated.

SAMT
Specialised Air Motors and Transmission

M1


M1-T
Standard


M1-ET
Chromium
Plated


M1-F
Flange


M1-L
Foot


M1-I
Metric

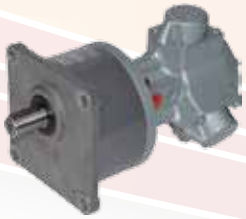

M1-LWG20
w/ Worm Gearbox

M2


M2-T
Standard


M2-F
Flange


M2-L
Foot


M2-FGS
w/ Compact
Reducer


M2-FDS
Double Shaft

M3


M3-T
Standard


M3-ST
SS


M3-IB
w/ Brake


M3-F
Flange


M3-LSG15HV
w/ Hand
Control Valve


M3-LG180
w/ Reducer


M3-FGS10
w/ Compact
Reducer


M3-FG5
w/ Reducer


M3-LGS15
w/ Compact
Reducer


M3-LG30
w/ Reducer


M3-FGS
w/ Compact
Reducer


M3-FBG
w/ Reducer & Brake

M4


M4-ET
Chromium
Plated


M4-T
Standard


M4-F
Flange


M4-I
Metric


M4-L
Foot


M4-LWG60
w/ Underdriven
Worm Gearbox


M4-FG60
w/ Reducer

M5


M5-ST
SS


M5-I
Metric


M5-LB
w/ Reducer


M5-FG5
w/ Reducer


M5-FG160
w/ Reducer


M5-FG100

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Specialised Air Motors and Transmission

M6

M6-ET
Chromium Plated

M6-F
Flange

M6-L
Foot

M6-I
Metric

M6-LG200
w/ Reducer

M6-LG5
w/ Reducer

Series	Gear Ratio	Perforance at Maximum Speed (at 6 bar)							Max. Torque		
		Power		Torque		Speed	Air Comp.		Speed	Torque	
		HP	kW	N·m	lb·in	RPM	l/min	CFM	RPM	N·m	lb·in
M1 (010)	1:1	0.10	0.07	0.637	5.64	1100	200	7	220	1.12	9.9
	5:1			2.84	25.1	220			44	4.99	44.2
	10:1			5.69	50.4	110			22	10	88.5
	15:1			8.53	75.5	73.3			14.7	15	133
	20:1			11.5	102	55			11	20.2	179
	30:1			16.4	145	36.7			7.3	28.9	256
M2	1:1	0.16	0.12	0.84	7.43	1000	211	7	200	1.5	13.3
	5:1	0.12	0.09	3.61	32.0	200			40	6.4	56.6
	10:1			7.22	63.9	100			20	12.7	112
	15:1			10.8	95.9	66.7			13.3	19.1	169
	20:1			14.4	128	50			10	25.4	225
	30:1			21.7	192	33.3			6.7	38.1	337
M3 (015)	1:1	0.25	0.19	1.37	12.1	900	260	9	180	2.51	22.2
	5:1			5.88	52.0	180			36	10.8	95.6
	10:1			11.8	104	90			18	21.6	191
	15:1			17.7	157	60			12	32.4	287
	20:1			23.5	208	45			9	42.8	379
	30:1			35.3	312	30			6	64.2	568
	40:1			47.1	417	22.5			4.5	85.7	759
	50:1			58.8	520	18			3.6	107	947
	60:1			70.6	625	15			3	129	1137
	80:1			93.2	825	11.2			2.2	170	1501
	100:1			118	1044	9			1.8	214	1891
	120:1			137	1213	7.5			1.5	248	2195
	160:1			176	1558	5.6			1.1	319	2820
	200:1			233	2062	4.5			0.9	422	3732
M4	1:1	0.33	0.25	2.16	19.1	850	267	9	170	3.95	35.0
	5:1	0.22	0.17	9.29	82.2	170			34	17.0	150
	10:1			18.6	164	85			17	34.0	301
	15:1			27.9	247	56.7			11.3	51.0	451
	20:1			37.2	329	42.5			8.5	67.9	601
	30:1			55.7	493	28.3			5.7	102	902
M5 (030)	1:1	0.5	0.37	2.94	26.0	750	400	14	150	5.45	48.2
	5:1			12.7	112	150			30	23.5	208
	10:1			26.5	235	75			15	49.0	434
	15:1			39.2	347	50			10	72.1	638
	20:1			53	469	37.5			7.5	97.5	863
	30:1			78.5	695	25			5	144	1278
	40:1			106	938	18.7			3.7	195	1726
	50:1			132	1168	15			3	243	2150
	60:1			157	1390	12.5			2.5	289	2557
	80:1			203	1797	9.3			1.9	374	3306
	100:1			250	2213	7.5			1.5	463	4093
	120:1			300	2655	6.2			1.2	555	4912
	160:1			396	3505	4.6			0.92	733	6484
	200:1			500	4425	3.7			0.74	925	8187
M6	1:1	0.75	0.56	4.40	38.9	700	507	18	140	8.1	71.7
	5:1	0.43	0.32	18.9	167	140			28	34.8	308
	10:1			37.8	335	70			14	69.6	616
	15:1			56.8	502	46.7			9.3	104	919
	20:1			75.7	670	35			7	138	1226
	30:1			114	1005	23.3			4.7	208	1839
M7 (507)	1:1	1	0.75	28	248	320	985	35	60	42	372
	3:1	0.89	0.66	65	575	100			20	116	1030
	5:1			110	974	64			12.8	197	1743
	10:1			212	1876	30			6	379	3359
	20:1			423	3744	16			3.2	757	6702
	20:1			850	7523	8			1.6	1522	13466
M9 (403)	1:1	0.35	0.26	1.67	14.8	1500	450	16	300	2.98	26.4
	5:1	0.31	0.23	6.86	60.7	300			60	12.2	108
	10:1			13.7	121	150			30	24.4	216
	15:1			20.6	182	100			20	36.7	325
	20:1			27.5	243	75			15	49.0	433
	30:1			41.2	365	50			10	73.3	649

M6-LBG20
w/ Reducer & Brake

M7

M7-I
Metric

M7-L
Foot

M7-FG30
Flange w/ Reducer

M7-LBG
Foot w/ Reducer & Brake

M9

M9-I
Metric

M10

M10-L
Foot

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M11

M11-F
Flange

M11-L
Foot

M11-LBG30
w/ Reducer
& Brake

M12

M11-FB
w/ Brake

M12-F Flange

M12-I Metric

M12-FG10
Flange w/ Reducer

M12-LG5
Foot w/ Reducer

M13

M13-F
Flange

M13S

M13S-F Flange

Series	Gear Ratio	Perforance at Maximum Speed (at 6 bar)							Max. Torque		
		Power		Torque		Speed	Air Comp.		Speed	Torque	
		HP	kW	N·m	lb·in	RPM	l/min	CFM	RPM	N·m	lb·in
M10 (404)	1:1	0.77	0.57	3.63	32.1	1500	950	34	300	6.5	57.5
	5:1	0.69	0.51	15.7	139	300			60	28.1	249
	10:1			31.4	278	150			30	56.2	497
	15:1			47.1	417	96			19.2	84.3	746
	20:1			62.8	556	72			14.4	112	995
	30:1			94.1	833	48			9.6	168	1491
M11 (405)	1:1	1.36	1.00	6.57	58.1	1450	1750	62	290	11.5	102
	5:1	1.22	0.91	29.4	260	290			58	51.5	455
	10:1			58.8	520	145			29	103	911
	15:1			88.3	782	96			19.2	155	1368
	20:1			118	1044	72			14.4	207	1828
	30:1			177	1567	48			9.6	310	2742
M12 (406)	1:1	3.31	2.47	17.5	155	1350	3700	131	270	31	274
	5:1	3	2.24	78.5	695	270			54	139	1231
	10:1			157	1390	135			27	278	2462
	15:1			235	2080	90			18	416	3684
	20:1			314	2779	67.5			13.5	556	4923
	30:1			471	4169	45			9	834	7385
	40:1			602	5328	33.8			6.8	1066	9438
	60:1			903	7992	22.5			4.5	1600	14158
	100:1			1505	13320	13.5			2.7	2666	23596
	120:1			1806	15984	11.3			2.3	3199	28315
	160:1			2408	21313	8.44			1.7	4266	37754
	200:1			3010	26641	6.75			1.4	5332	47192
M13 (506)	1:1	4.2	3.09	21.6	191	1350	4200	148	270	39	345
	5:1	3.8	2.83	98.1	868	270			54	177	1563
	10:1			196	1735	135			27	353	3123
	15:1			294	2602	90			18	529	4684
	20:1			392	3469	67.5			13.5	706	6245
	30:1			583	5160	45			9	1049	9288
	40:1			745	6594	33.8			6.8	1341	11869
	60:1			1115	9865	22.5			4.5	2006	17756
	100:1			1858	16441	13.5			2.7	3344	29594
	120:1			2229	19729	11.3			2.3	4012	35513
	160:1			2972	26306	8.4			1.7	5350	47350
	200:1			3715	32882	6.8			1.4	6687	59188
M13S (110)	1:1	2.28	1.7	8.10	71.7	2000	1920	68	400	12	106
	3:1	2.05	1.53	21.9	194	666			133	32.4	287
	5:1			36.5	323	400			80	54	478
	10:1			72.9	645	200			40	108	956
	15:1			109	968	133			26.6	162	1434
	20:1			146	1290	100			20	216	1912
	30:1			219	1936	66			13.2	324	2868
	40:1			292	2581	50			10	432	3824
	60:1			413	3656	33			6.6	612	5417
	80:1			551	4875	25			5	816	7222

M13S-L Foot

M13S-I IEC

M14

M13S-FBHCV

M14-F Flange

M14-I IEC

M14-L Foot

M14-FBG40
w/ Reducer & Brake

M15

M15-F
Flange

M15-IBRCV
w/ Brake

M15-I
Metric

M15-L
Foot

M15-LHCV
w/ Hand Control Valve

M16

M16-I IEC

M16-F
Flange

M16-L Foot

M16-N Imperial

M16-FBHCV
w/ HCV & Brake

M16-FG
w/ Reducer

M17

M17-FHCV
w/ Hand Control Valve

M17-FBRCV
w/ Remote Control
Valve & Brake

M18

M18-IRCV
IEC w/ Remote
Control Valve

M18 FBHCV
w/ Hand Control
Valve & Brake

Series	Gear Ratio	Performance at Maximum Speed (at 6 bar)							Max. Torque		
		Power		Torque		Speed	Air Comp.		Speed	Torque	
		HP	kW	N·m	lb·in	RPM	l/min	CFM	RPM	N·m	lb·in
M14 (210)	1:1	5.36	4	20	177	1900	5880	208	380	34	301
	3:1	4.80	3.58	54	478	633			126.7	94.5	836
	5:1			90	797	380			76	158	1394
	10:1			180	1593	190			38	315	2788
	15:1			270	2390	127			25.3	473	4182
	20:1			360	3186	95			19	630	5576
	30:1			540	4779	63.3			12.7	945	8364
	40:1			720	6373	47.5			9.5	1260	11152
	60:1			1080	9559	31.7			6.3	1890	16728
	80:1			1440	12745	23.8			4.75	2520	22304
M15 (310)	1:1	10.1	7.5	42	372	1800	9840	347	360	70	620
	3:1	9.55	7.12	113	1004	647			129	189	1673
	5:1			189	1673	358			71.6	315	2788
	10:1			378	3346	203			40.6	630	5576
	15:1			567	5018	136			27.2	945	8364
	20:1			756	6691	86			17.2	1260	11152
	30:1			1134	10037	57			11.4	1890	16728
	40:1			1512	13382	45			9	2520	22304
	50:1			1890	16728	36			7.2	3150	27880
	60:1			2142	18958	32			6.4	3570	31597
	80:1			2856	25278	21			4.2	4760	42130
M16 (410)	1:1	18.8	14	85	752	1600	15600	551	320	140	1239
	3:1	13	9.70	227	2009	533			106.7	374	3308
	5:1			378	3348	320			64	623	5514
	10:1			757	6696	160			32	1246	11028
	15:1			1135	10043	107			21.3	1869	16542
	20:1			1513	13391	80			16	2492	22056
	30:1			2270	20087	53.3			10.7	3738	33084
	40:1			3026	26782	40			8	4984	44112
	60:1			4539	40174	26.7			5.3	7476	66168
M17 (510)	1:1	21.7	16.2	140	1239	1100	19810	700	220	235	2080
	3:1	19	14.2	374	3308	367			73.3	627	5553
	5:1			623	5514	220			44	1046	9256
	10:1			1246	11028	110			22	2092	18511
	20:1			2464	21808	55			11	4136	36607
	30:1			3696	32712	36.7			7.3	6204	54910
	40:1			4928	43616	27.5			5.5	8272	73213
M18 (610)	1:1	31.2	23.3	155	1372	1500	22500	795	300	235	2080
	3:1	28.7	21.4	414	3663	500			100	627	1722
	5:1			690	6105	300			60	1046	1935
	10:1			1380	12210	150			30	2092	3617
	20:1			2728	24145	75			15	4136	8367
	30:1			4092	36217	50			10	6204	9612
	40:1			5456	48290	37.5			7.5	8272	10543

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Specialised Air Motors and Transmission

AIR GEARMOTORS

For applications where precise and variable turning power and speed is a requirement. Examples are bolt tensioning equipment or rock drilling rigs, precise lifting, lowering, traversing or turning. Unlike electric gearmotors, no chance of burn-out nor heat buildup with TONSON Air Motors. Direction of rotation is instantly reversible.

M16-FG
w/Reducer

BRAKES

For applications where positive braking is a requirement, a range of caliper brakes is offered. These are designed to withstand full stall torque of the air motor. The brake consists of two spring supplied shoes pressed against a central hub. The shoes are realeased by applying air pressure to the cylinder/piston assembly. The brake torque can be carried by adjustment of two spring adjusters but it is normally set so that a pilot pressure of 4 bars (60 PSI) will fully release it.

M17-FBRCV
w/ Remote Control
Valve & Brake

VALVE OPTIONS (1/2", 3/4",1", 1 1/4", 1 1/2", 2")

A range fo bolt on Hand Control Valves and Remote Control Valves are avaliable for use on all TONSON Piston Air Motors. Designed to completely elimate all static friction, thereby reducing hysteresis effect and reverse hand control is required, with spring centre to neutral position by a lever mechanism or controlled by air pilot signal.
Two control styles are manufactured:
i) Equal power and speed in both directions.

ii) Biased to give a degree of control for hoisting applications.

Hand Control Valve

Remote Control Valve
One pilot port, 1/4" on each end.
Caps may be positioned with port at top, bottom or either side.
The pilot pressure range is between 1.4 bar (20 psi) and 4.8 bar (70 psi), increased pilot pressure gives increased speed

M16-FBHCV
w/ HCV & Brake

Operating Pressure

Air Motors	Max. Operating Pressure
Vane V1-V16	7 kg/cm^2
Piston M1-M13	6 kg/cm^2
Piston M13S-M18	8 kg/cm^2

Working Fluid: Compressed Air
AmbientTemperature: 20 ~ +120℃

How to Order

M16 - F B G10 RCV

Motor	Mounting		Brake Option		Reducer Option				Valve Option	
M14	F	Flange	Blank	No Brake	Blank	No Reducer			Blank	No Valve
M15	L	Foot	B	Brake	G3	1/3	G30	1/30	HCV	Hand Control Valve
M16	I	IEC			G5	1/5	G40	1/40	RCV	Remote Control Valve
M17	N	NEMA			G10	1/10	G60	1/60		
M18	I	IEC			G15	1/15	G80	1/80		
					G20	1/20	G100	1/100		

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Control Vales


HV1 Mini Reverse Control


HV2 Reverse Control


HV3 Reverse Control


HV4 Reverse Control


HCV Hand Control Valve


RCV Remote Control Valve


Pressure Gauge


Air Regulator

APPLICATION

Model	Piston Air Motor																	
	M1	M2	M3	M4	M5	M6	M7	M9	M10	M11	M12	M13	M13S	M14	M15	M16	M17	M18
HV1 Mini (1/4")	●	●	●	●	●	●		●										
HV2(1/4")								●										
HV3(1/2")							●		●	●								
HV4(1")											●	●						
HCV1(RCV1)1/2"													●					
HCV2(RCV2)3/4"														●				
HCV3(RCV3)1"															●			
HCV4(RCV4)1-1/4"																●		
HCV5(RCV5)1-1/2"																	●	
HCV6(RCV6)2"																		●

● Standard
★ Better Performance

Silencer


TC1 TC3 TC4 SC2 MF SM1 SM2 NM3 NM1 NM2 SP PL5 PL4 PL2

Model	SC2	TC1	TC2S	TC3	TC4	MF1	MF3	MF5	MF7	MF9	MF11	NM1	NM2	NM3	SM1	SM2	SP1	SP2	SP2L	SP3	SP4	PL1	PL2	PL3	PL4	PL5	PL6
Caliber(PT)	2"	1"	1-1/2"	1-1/2"	2"	3/8"	1/2"	3/4"	1"	1-1/2"	2"	1/8"	1/4"	1/2"	1/4"	1/2"	1/8"	1/4"	1/4"	3/8"	1/2"	1/8"	1/4"	3/8"	1/2"	3/4"	1"
Dia. O	86	100	70	100	100	80	90	100	112	132	150	48	76	78	40.5	65	16	16	20	26	28	12	19	20	24	40	49
Height mm	256	202	164	217	211	129	147	171	195	259	312	48	58	107	50	80	34	37	62	67	70	30	42	57	55	113	112
Material	Carbon Steel	Filter:Fiber Shell:Steel				Filter:A5052P.SPCC Shell:PC.A2011						Adsorb Active Carbon			Industrial Cotton		Forming Resin (5μm)			Filter: Plastic Particle Shell: Engineering Plastic							

FRL (Filter, Regulato, and Lubricator)


FRL1/4 Mini


FRL1/4 FRL1/2


FRL1


FRL2


FRL(1/4") Stainless Steel

Model	Piston Air Motor																		Caliber	Mass (kg)
	M1	M2	M3	M4	M5	M6	M7	M9	M10	M11	M12	M13	M13S	M14	M15	M16	M17	M18		
FRL1/4 Mini	FOR TONSON AIR FAN ONLY																		1/4"	0.2
FRL1/4		●	●	●	●	●	●		●										1/4"	0.5
FRL1/2								●		●	●			●					1/2"	1.41
FRL1												●	●		★	●			1"	4.43
FRL1-1/4																★	●		1-1/4"	7.5
FRL2																	★	●	●	2"	12

Temperature Range: -5~60℃
Maxx Pressure: 9.5 (kgf/cm^2)
Pressure Range: 0.5~8.5 (kgf/cm^2)
Lubrication Recommended: ISO VG or Equivalent

● Standard
★ Better Performance

Model	FRL1/4Mini	FRL1/4 &FRL1/2	SS1/4	FRL1	FRL2
Dimension(cm)	9x4.5x17.5	16x7x23.5	11.5x7x24.5	17.8x7x28	65x16x72

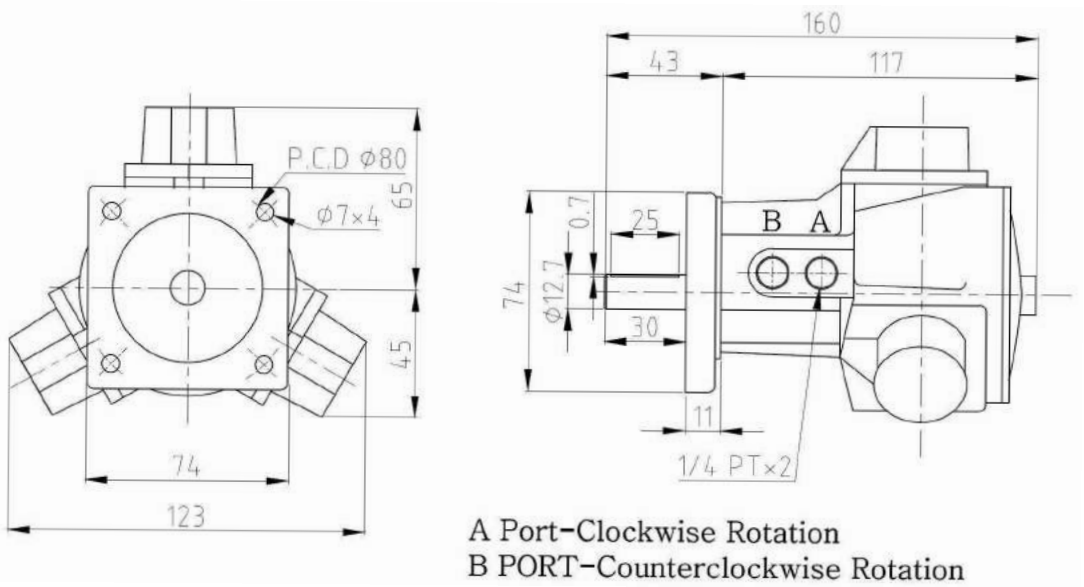
FRL (Filter, Regulator, and Lubricator) are recommendd to improve air motor performance and provide longer life.

Working Fluid: Compressed Air Operating Pressure: 6kg/cm^2 Max. Operating Pressure: 7kg/cm^2 Ambient Temperature: -10 -+120°C
Air Motors are designed to operate by compressed air and to be used with filter, regulator and lubricator to improve performance and provide longer life. Users should be responsible for determining suitable of the product for intended use and assuming all risk and liability whatsoever in connection therewith.

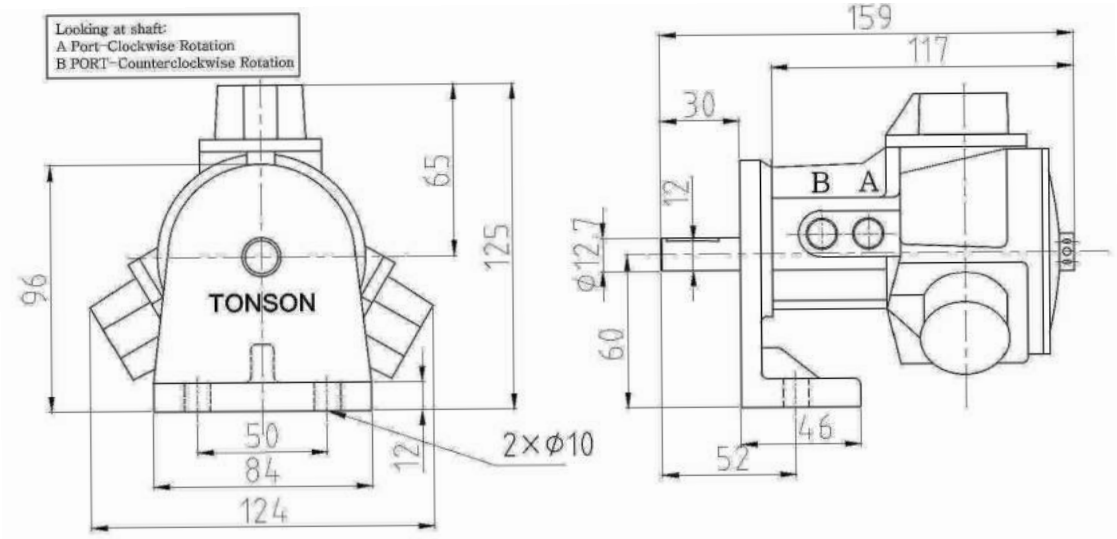
SAMT
Specialised Air Motors and Transmission

Dimensions - M1 Series

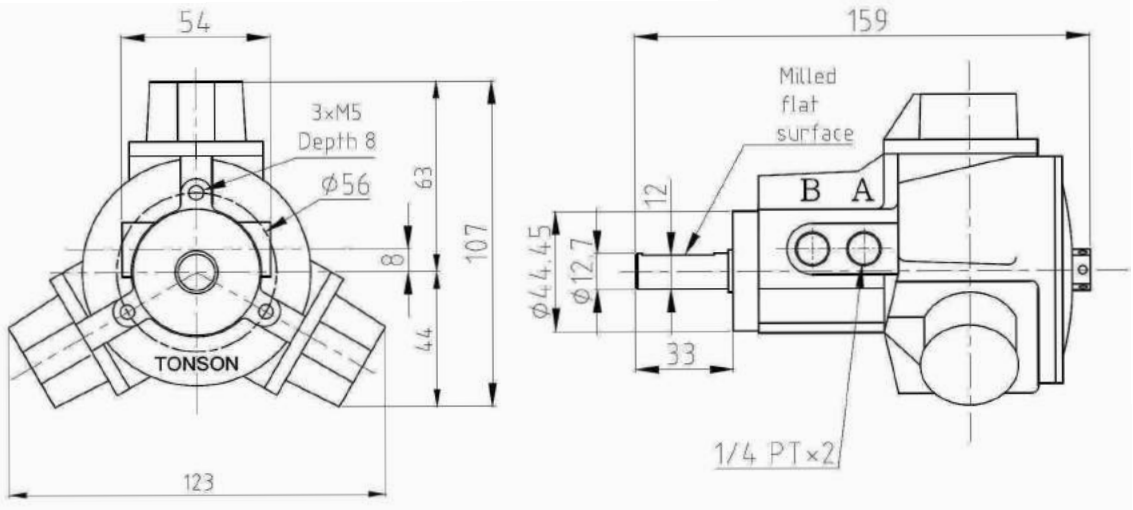
M1-F Face

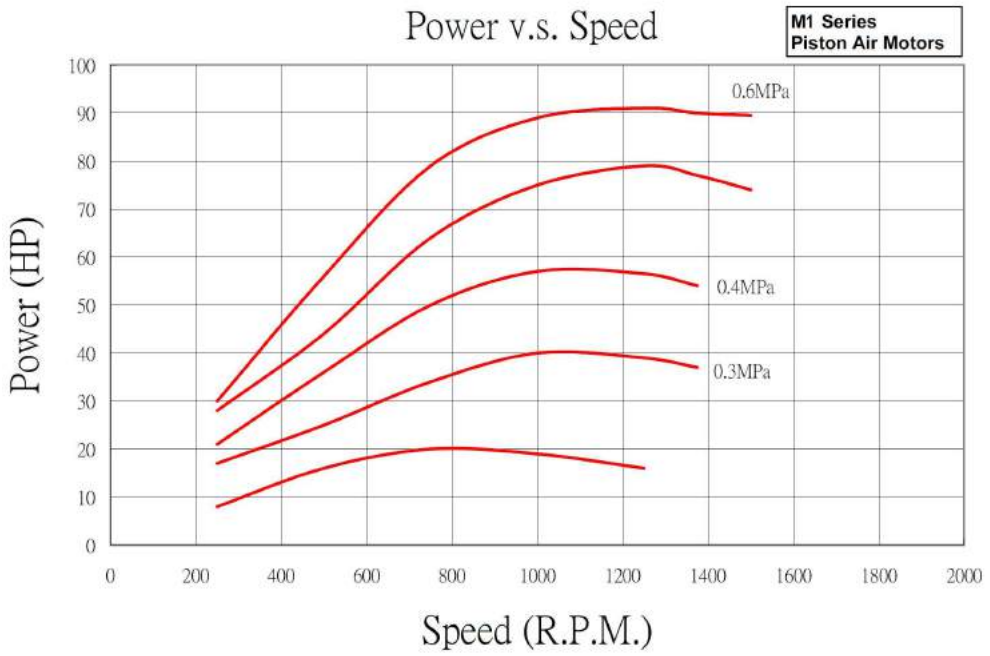


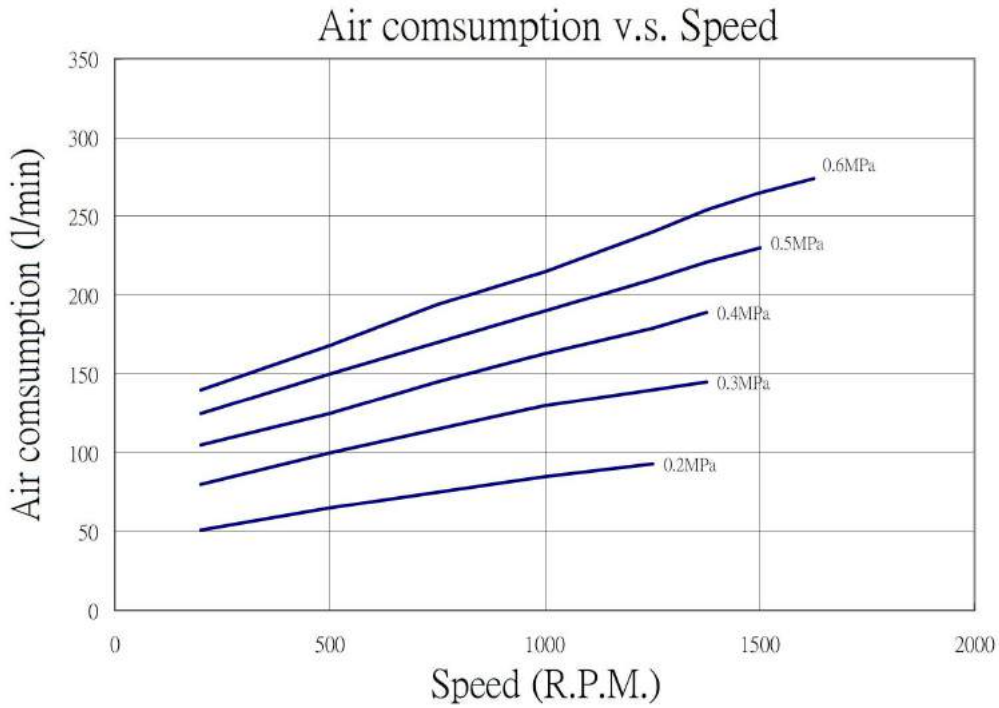
M1-L Foot

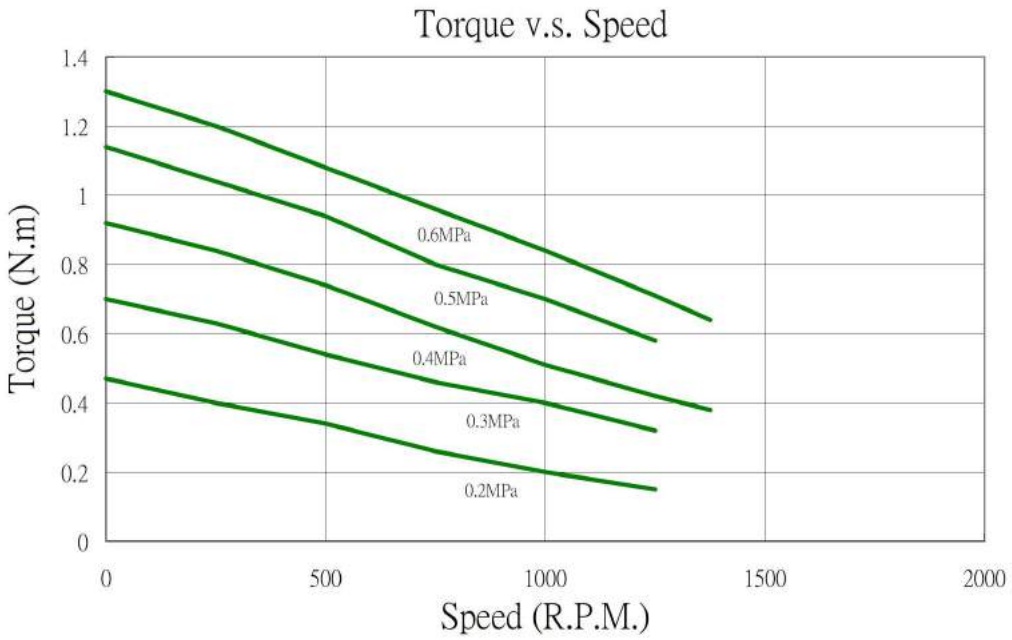


M1-T Standard

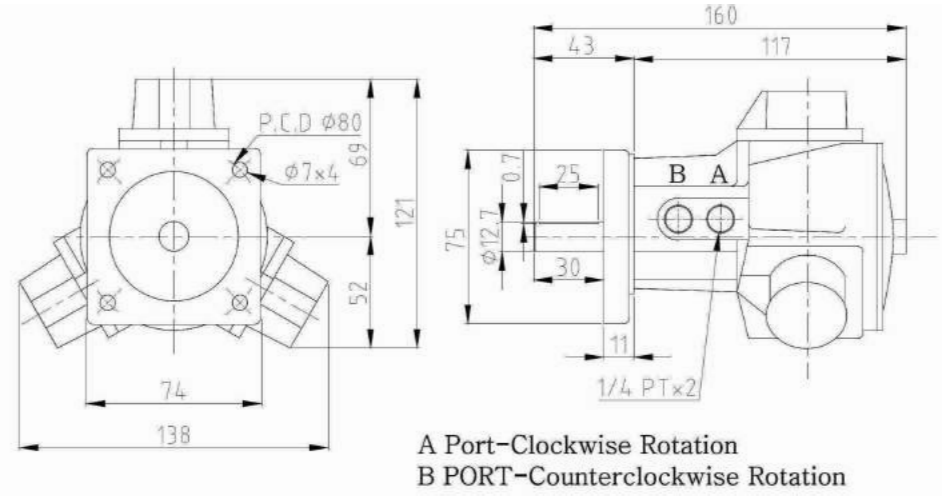



Power v.s. Speed
M1 Series
Piston Air Motors
Power (HP)
Speed (R.P.M.)
0.6MPa
0.4MPa
0.3MPa
0
10
20
30
40
50
60
70
80
90
100
0
200
400
600
800
1000
1200
1400
1600
1800
2000

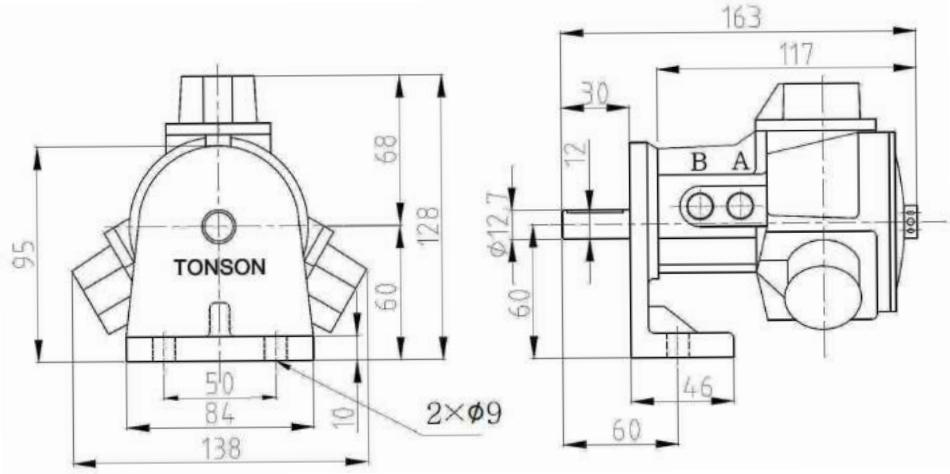

Air comsumption v.s. Speed
Air comsumption (l/min)
Speed (R.P.M.)
0.6MPa
0.5MPa
0.4MPa
0.3MPa
0.2MPa
0
50
100
150
200
250
300
350
0
500
1000
1500
2000


Torque v.s. Speed
Torque (N.m)
Speed (R.P.M.)
0.6MPa
0.5MPa
0.4MPa
0.3MPa
0.2MPa
0
0.2
0.4
0.6
0.8
1
1.2
1.4
0
500
1000
1500
2000

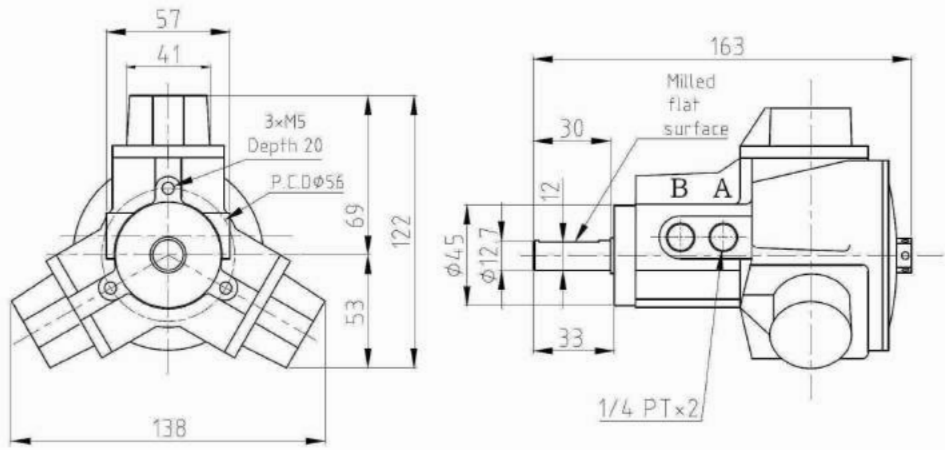
M2-F Face



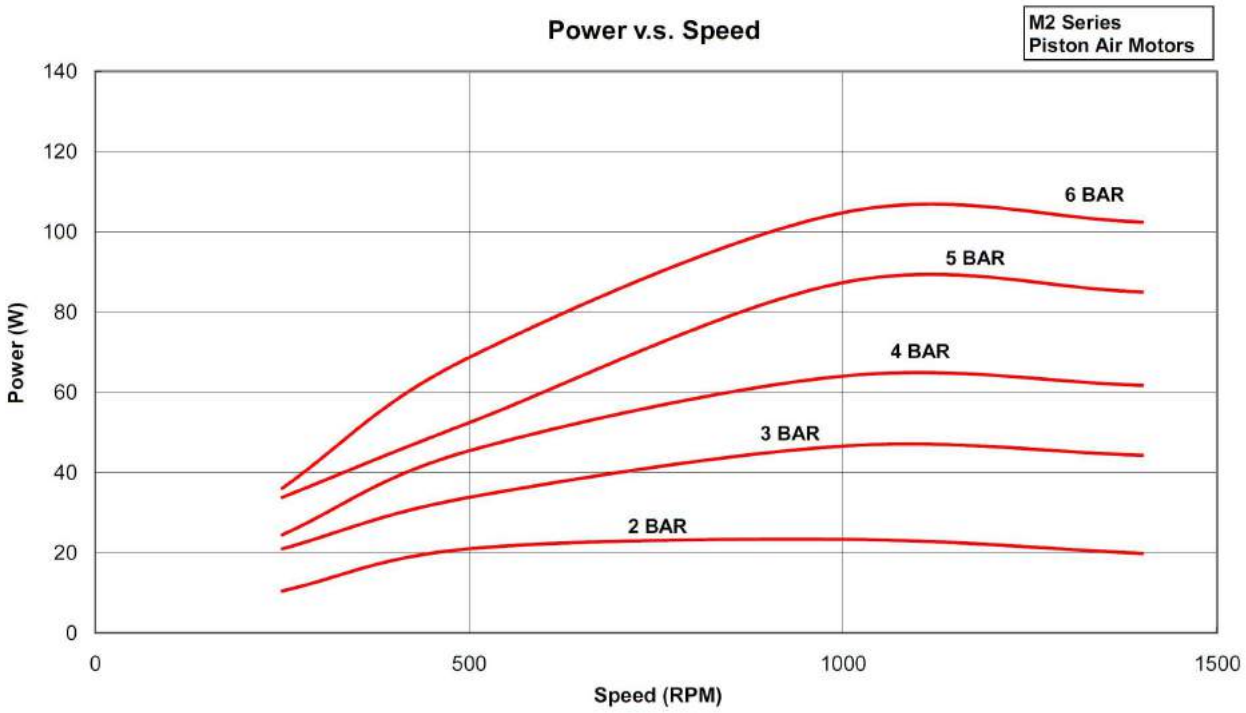
M2-L Foot

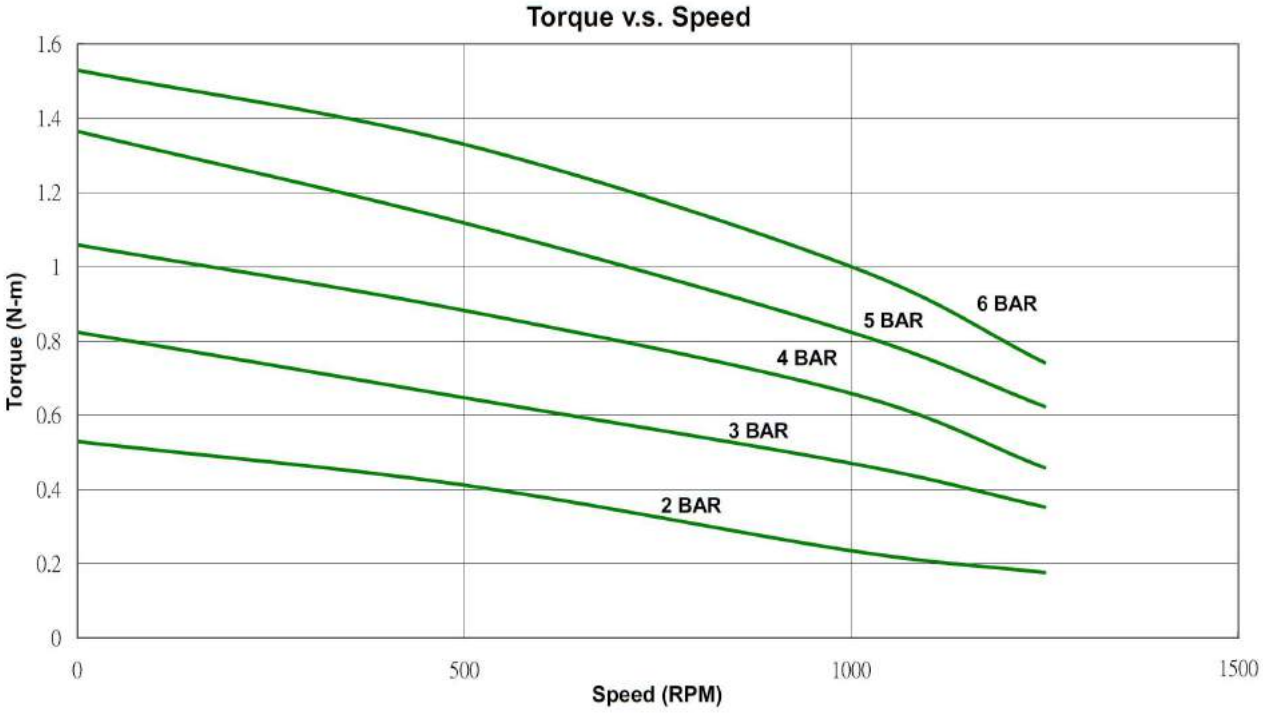


M2-T Standard



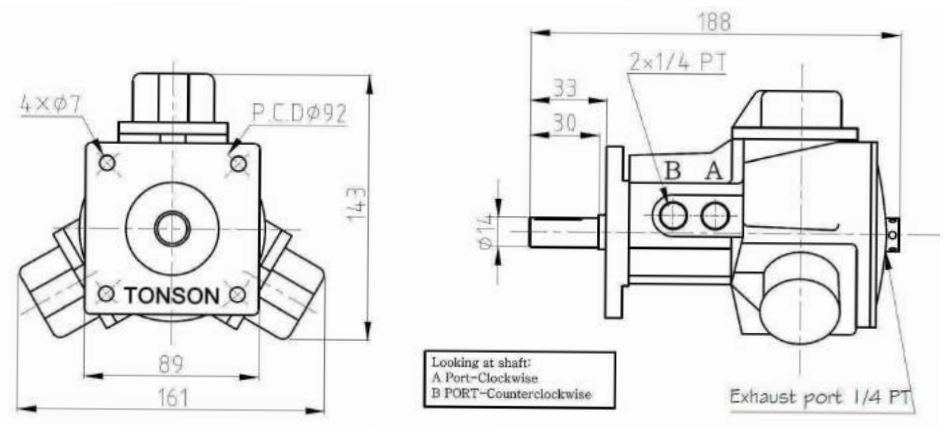
Performance Graphs - M2 Series



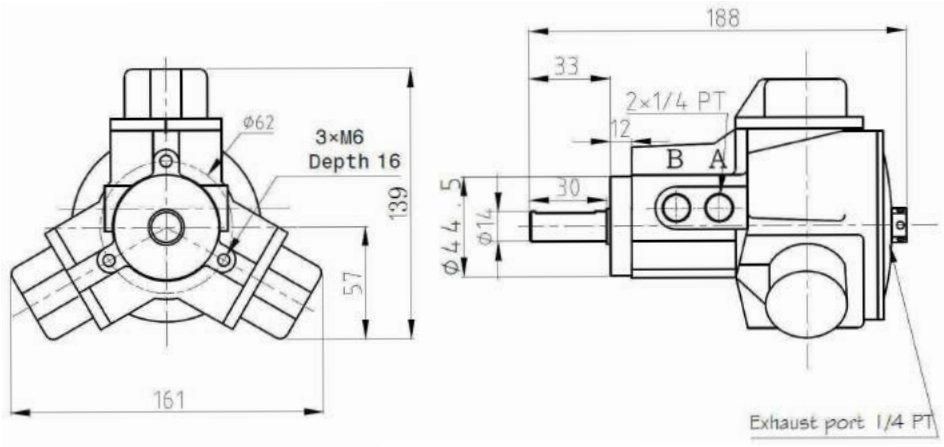


Dimensions - M3 Series

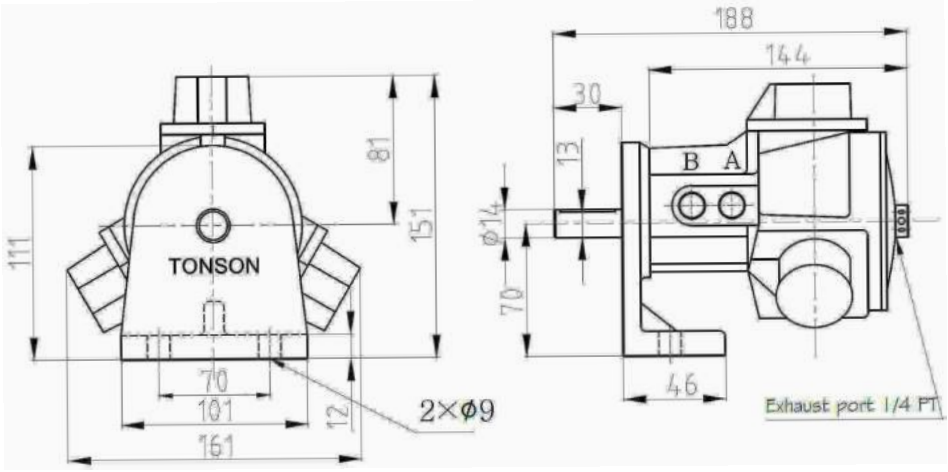
M3-F Face



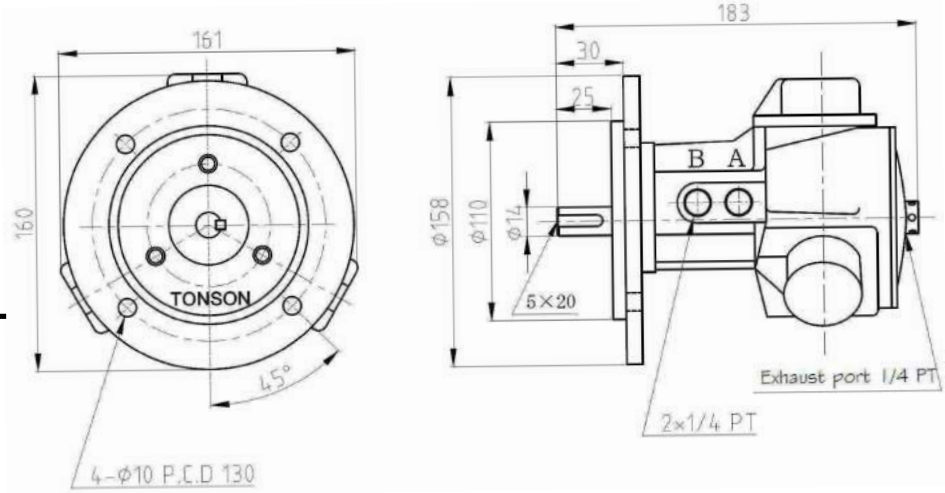
M3-T Standard



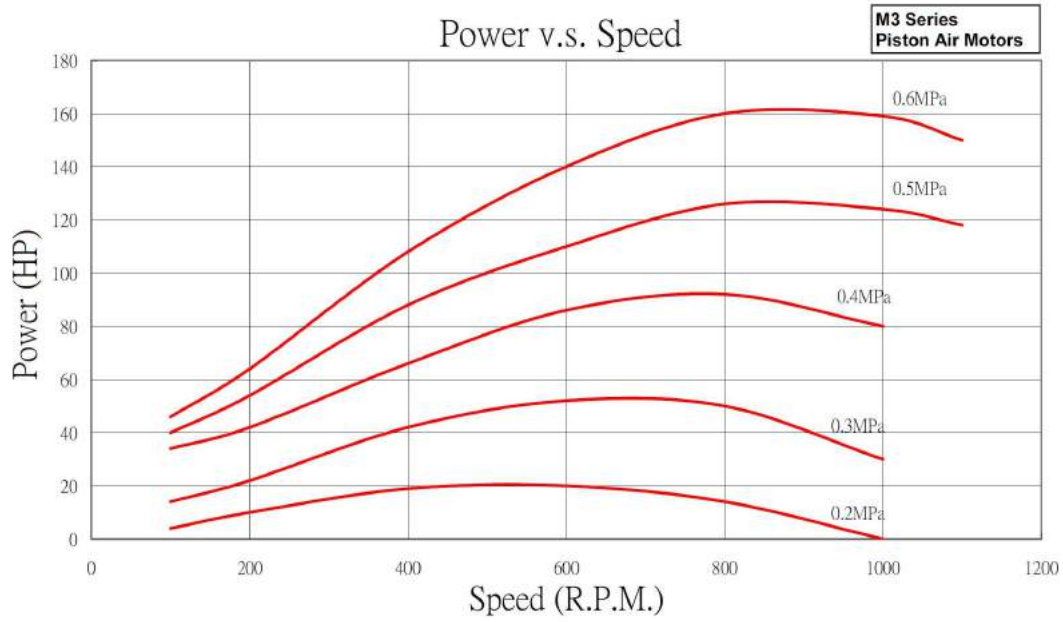
M3-L Foot

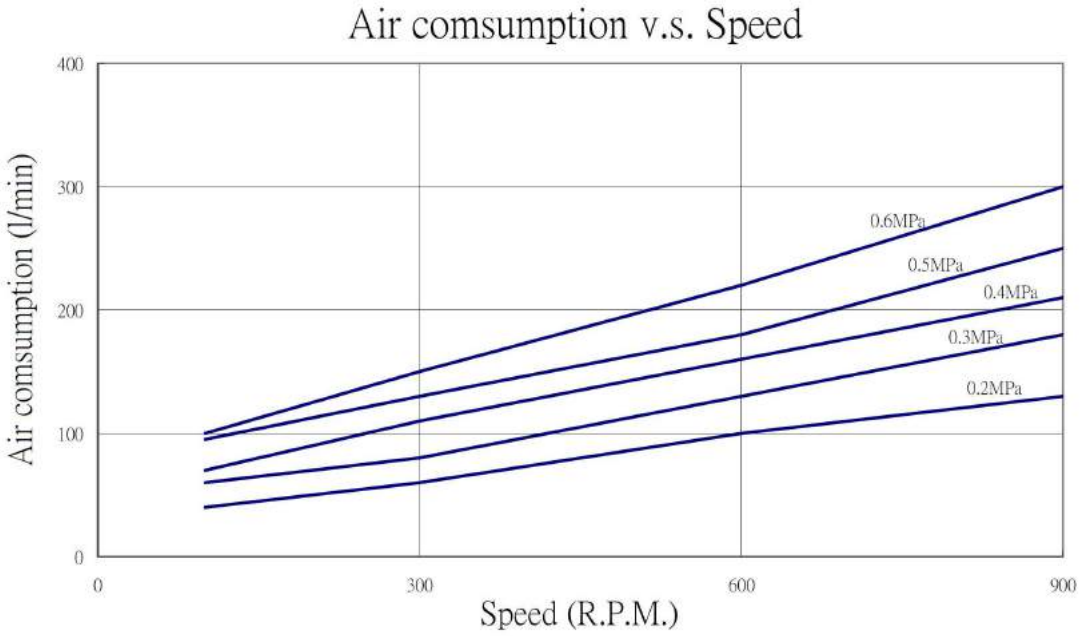


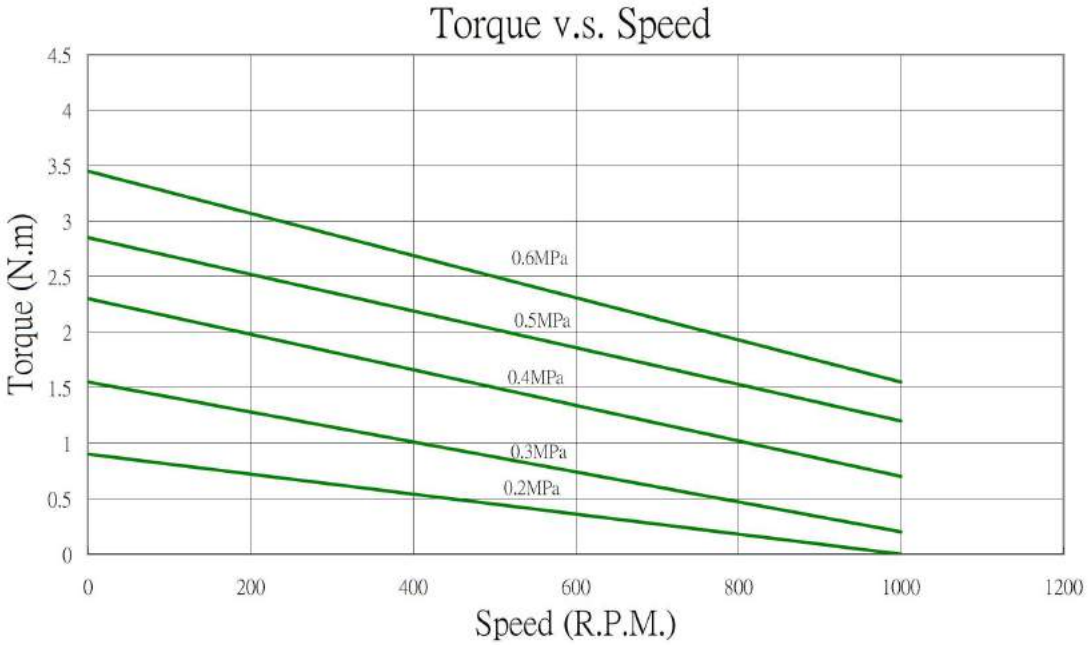
M3-I IEC D71



Performance Graphs - M3 Series

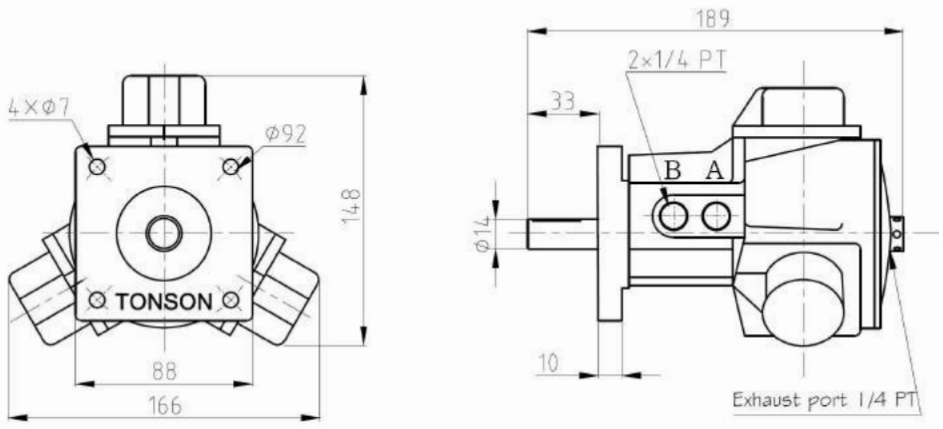




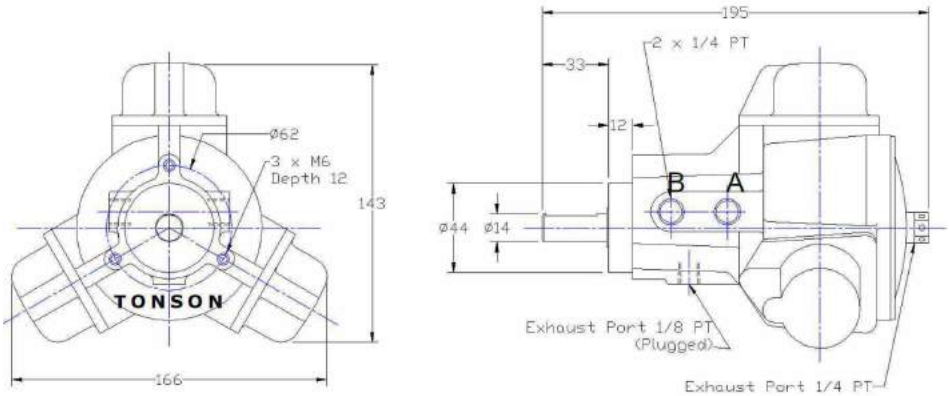


Dimensions - M4 Series

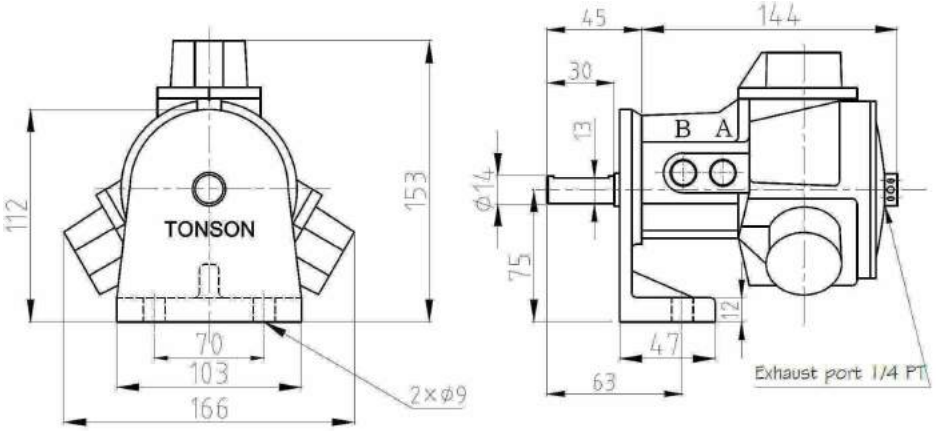
M4-F Face



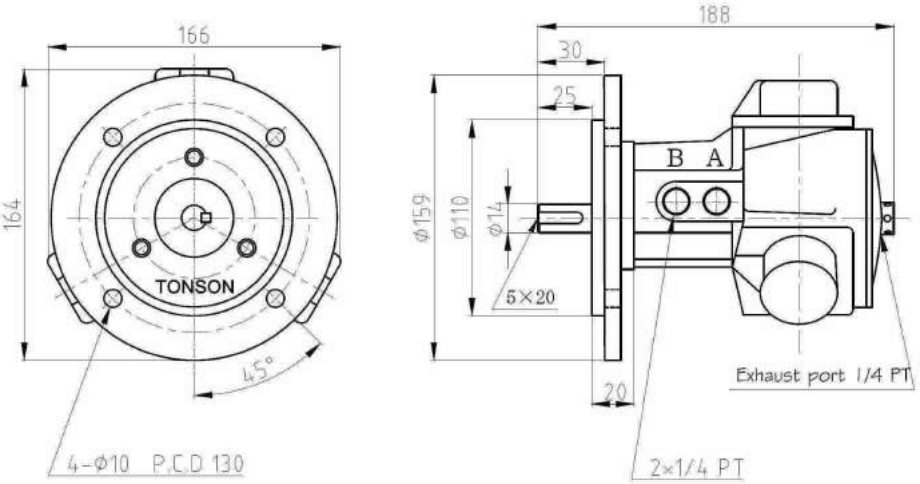
M4-T Standard



M4-L Foot



M4-I IEC D71

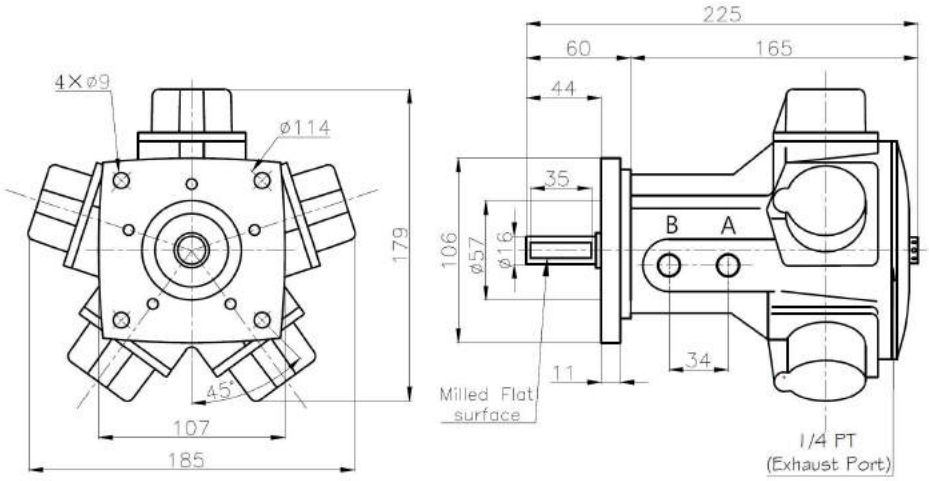


Performance Graphs - M4 Series

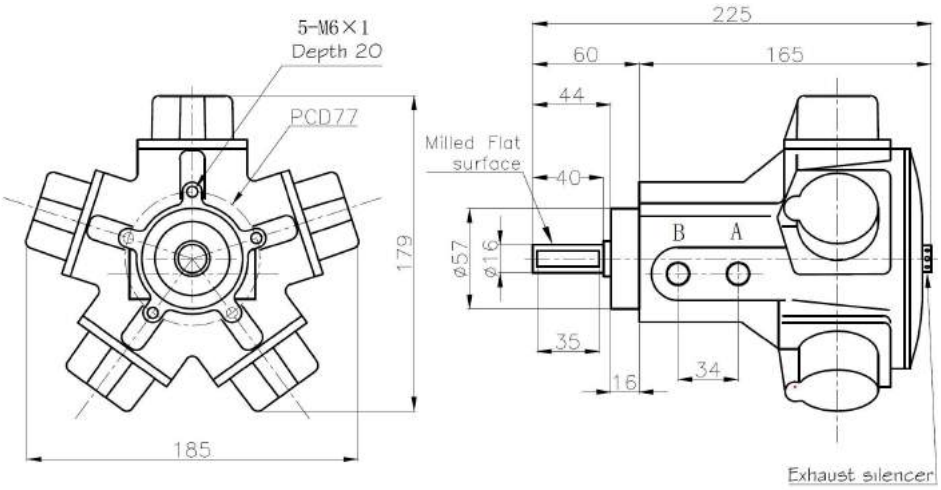
Please call our office for details.

Dimensions - M5 Series

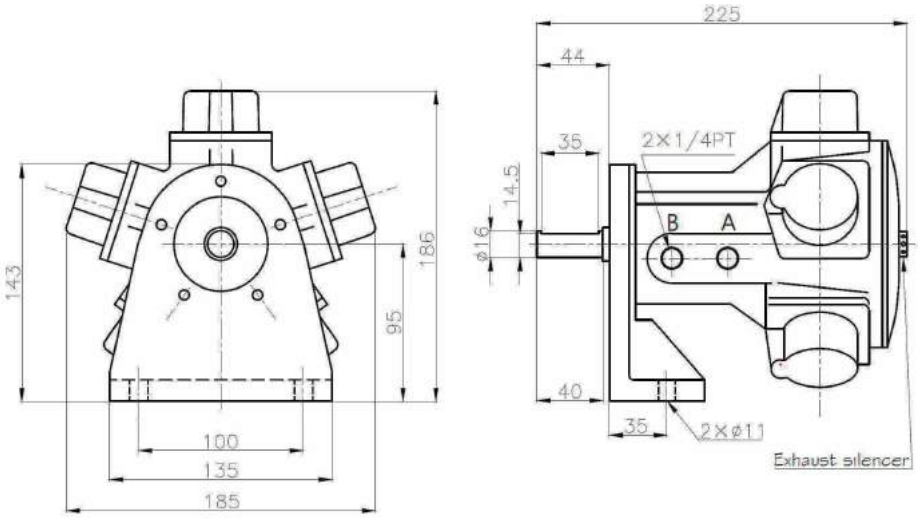
M5-F Face



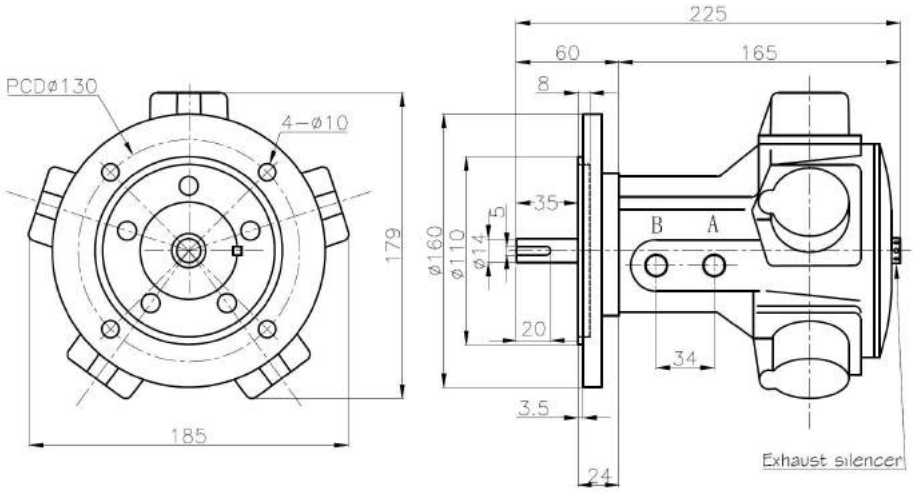
M5-T Standard



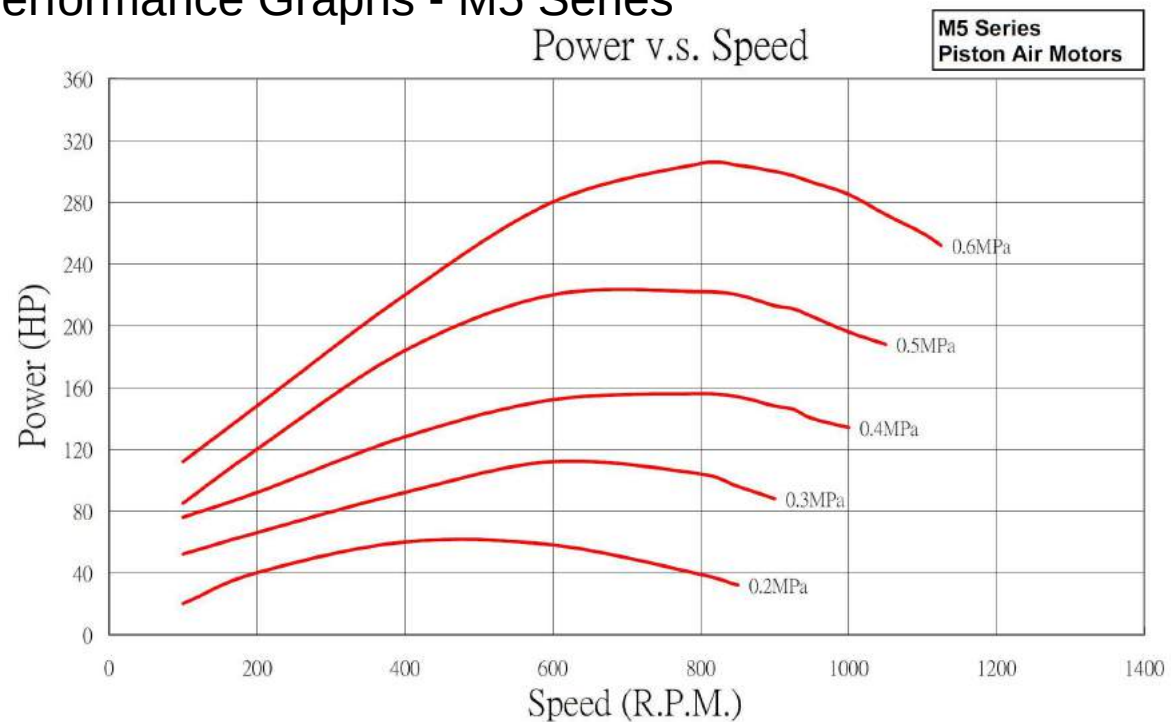
M5-L Foot

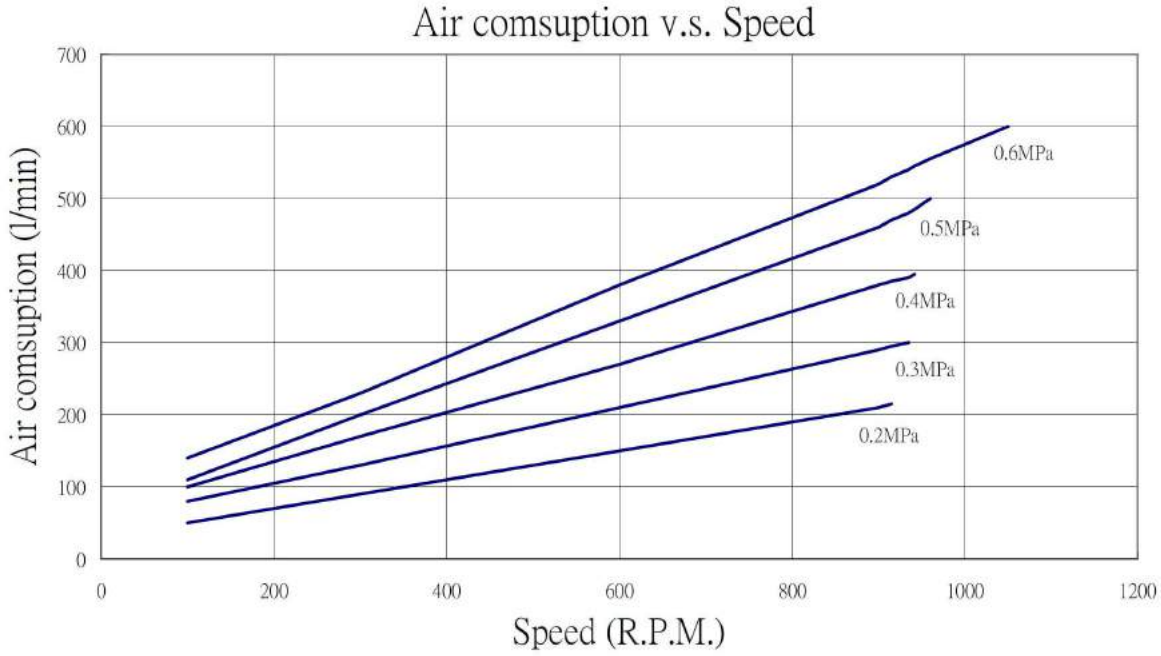


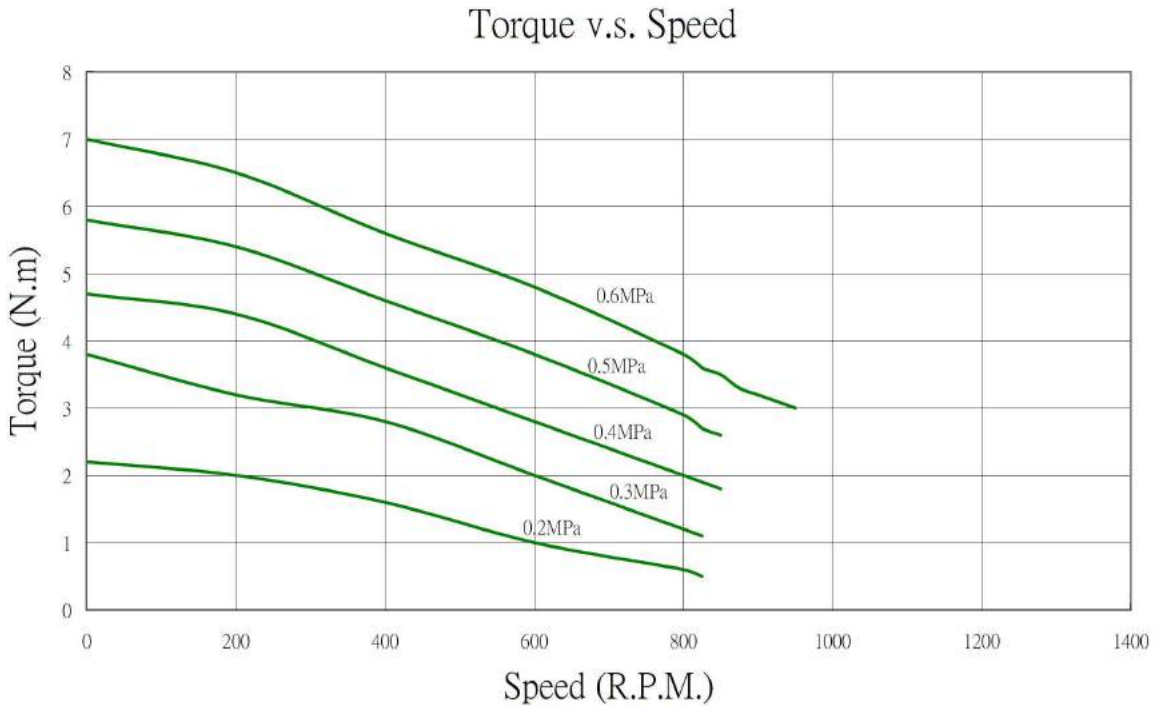
M5-I IEC D71



Performance Graphs - M5 Series

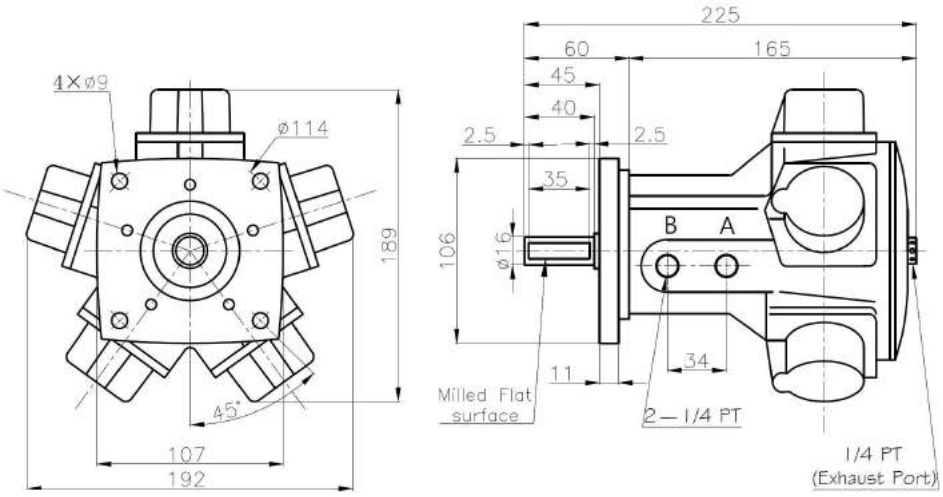




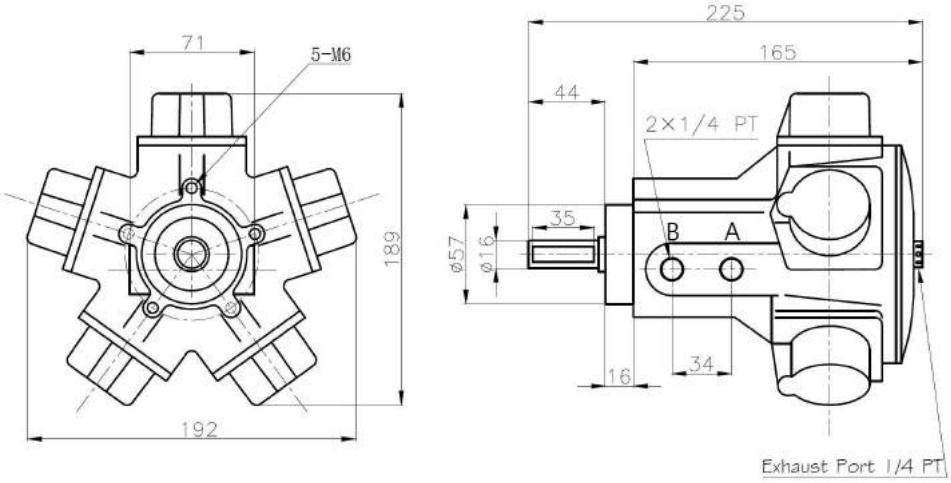


Dimensions - M6 Series

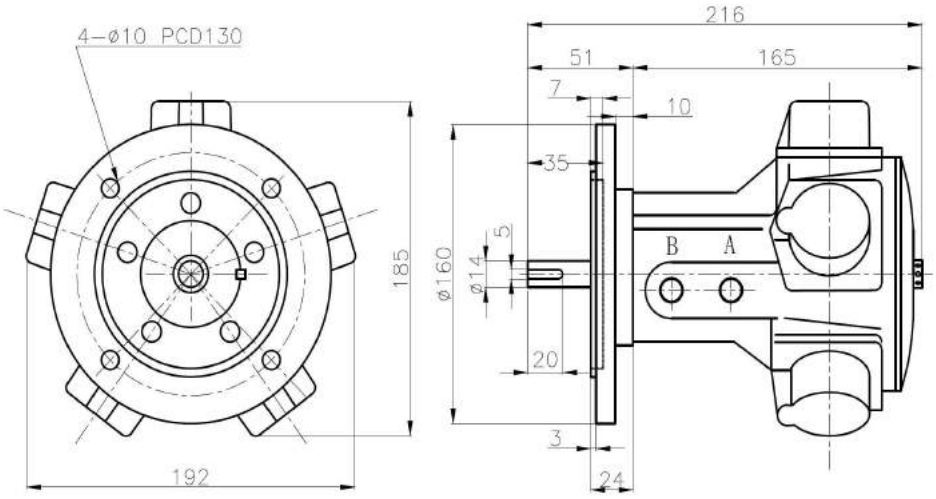
M6-F
Face



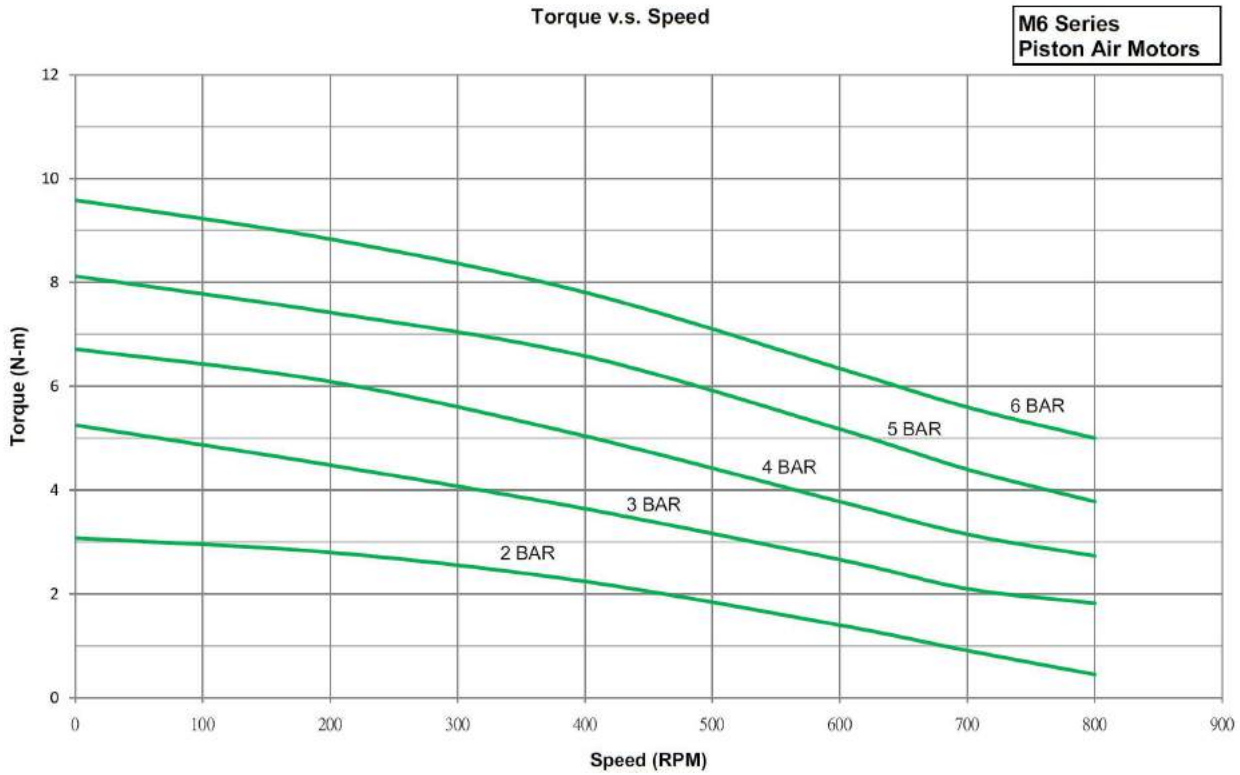
M6-T
Standard



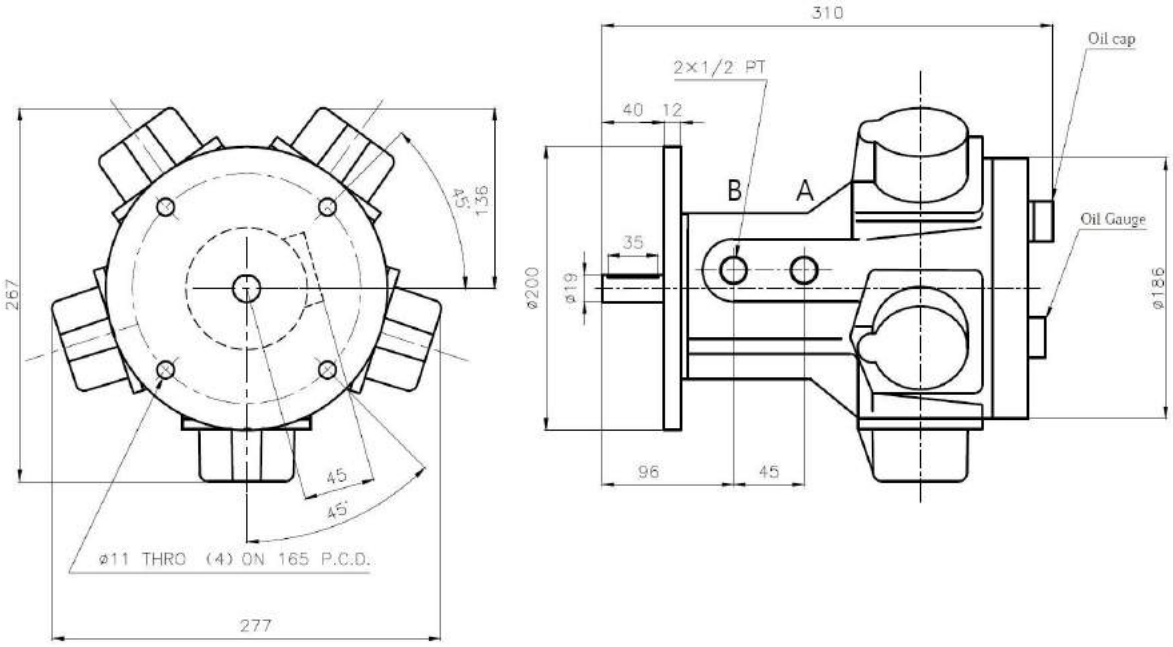
M6-I
IEC D71



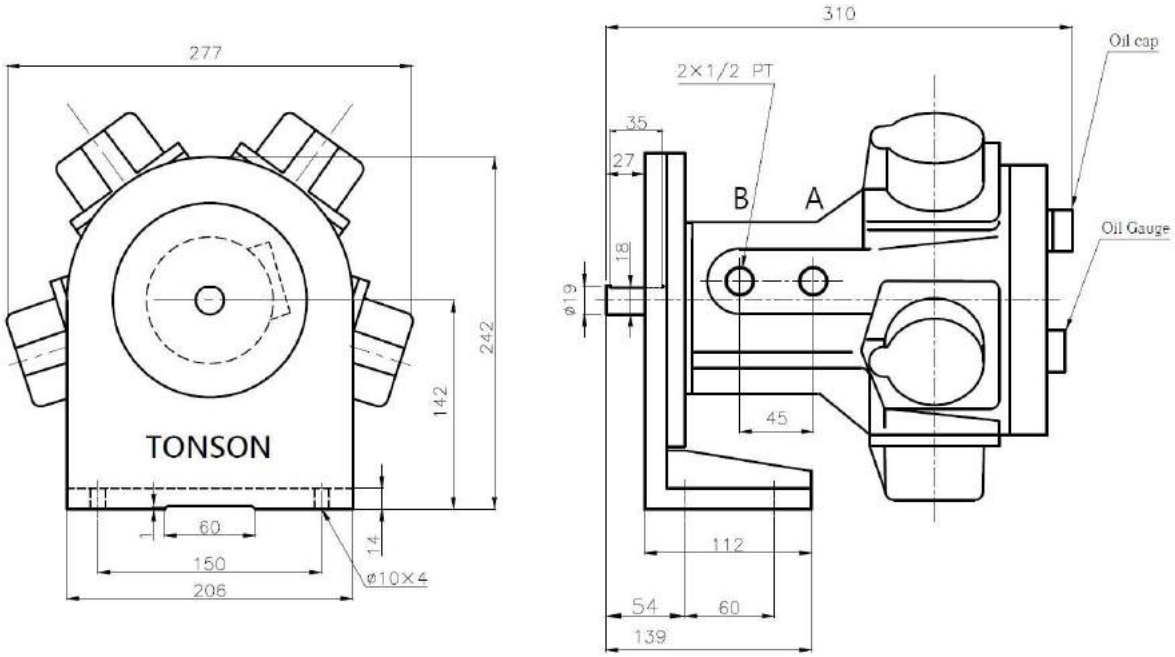
Performance Graph - M6 Series



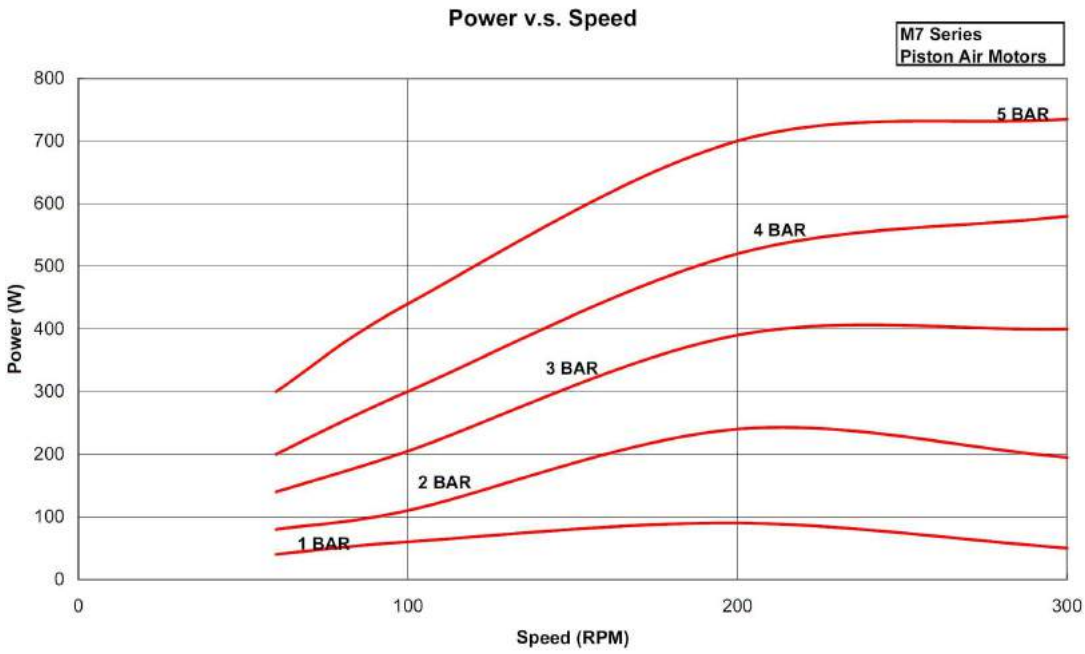
M7-F Face

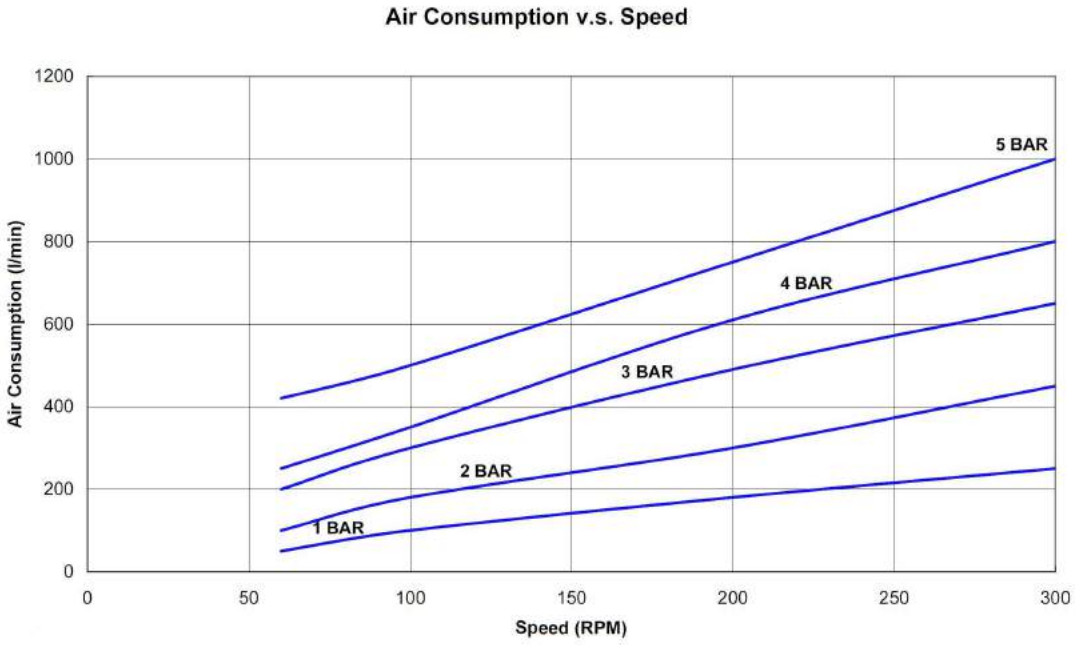


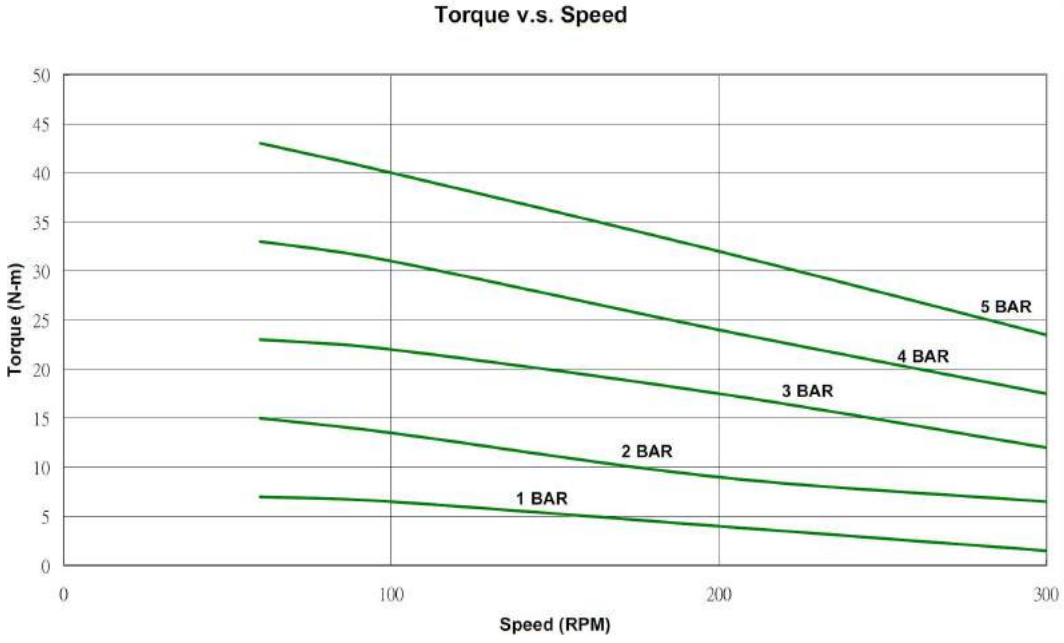
M7-L Foot



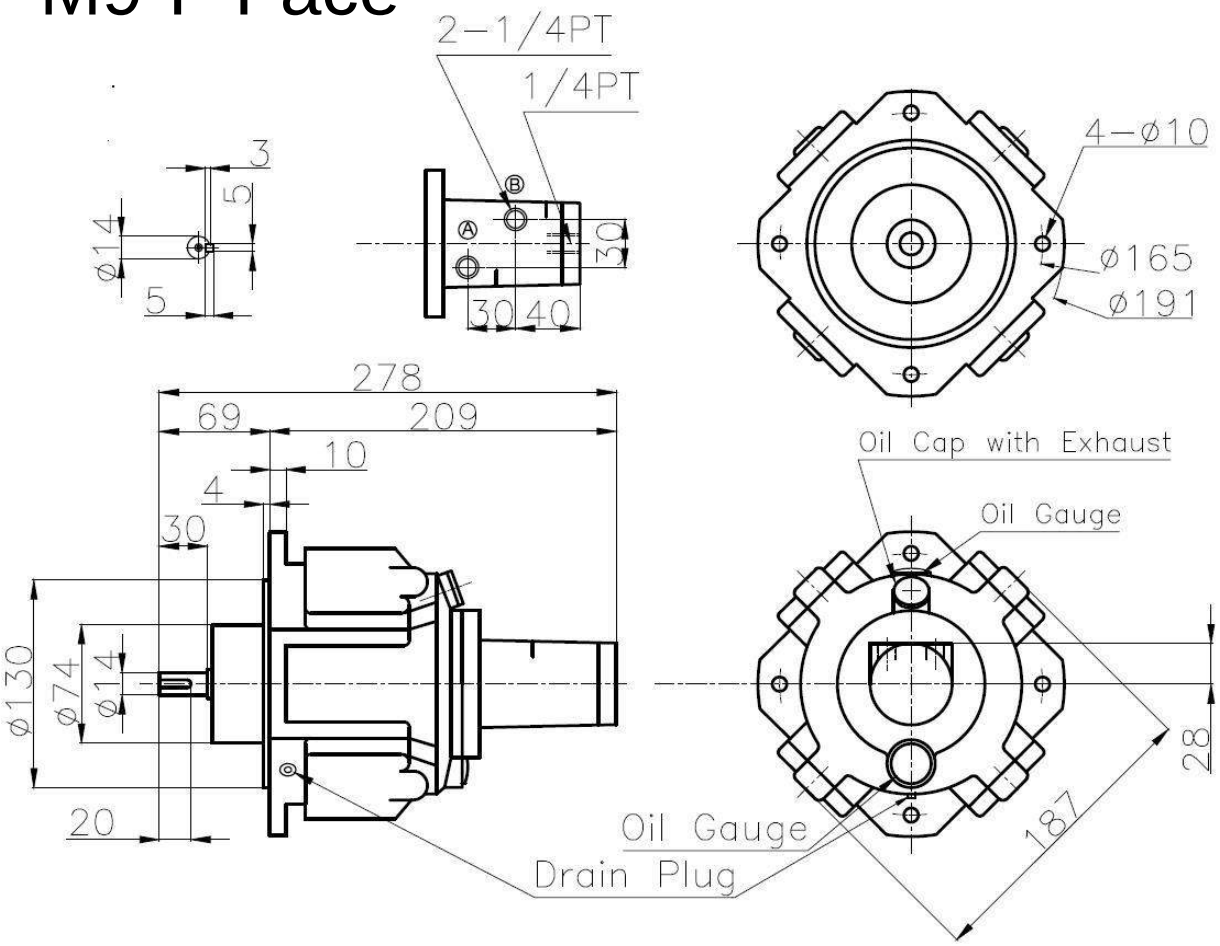
Performance Graphs - M7 Series



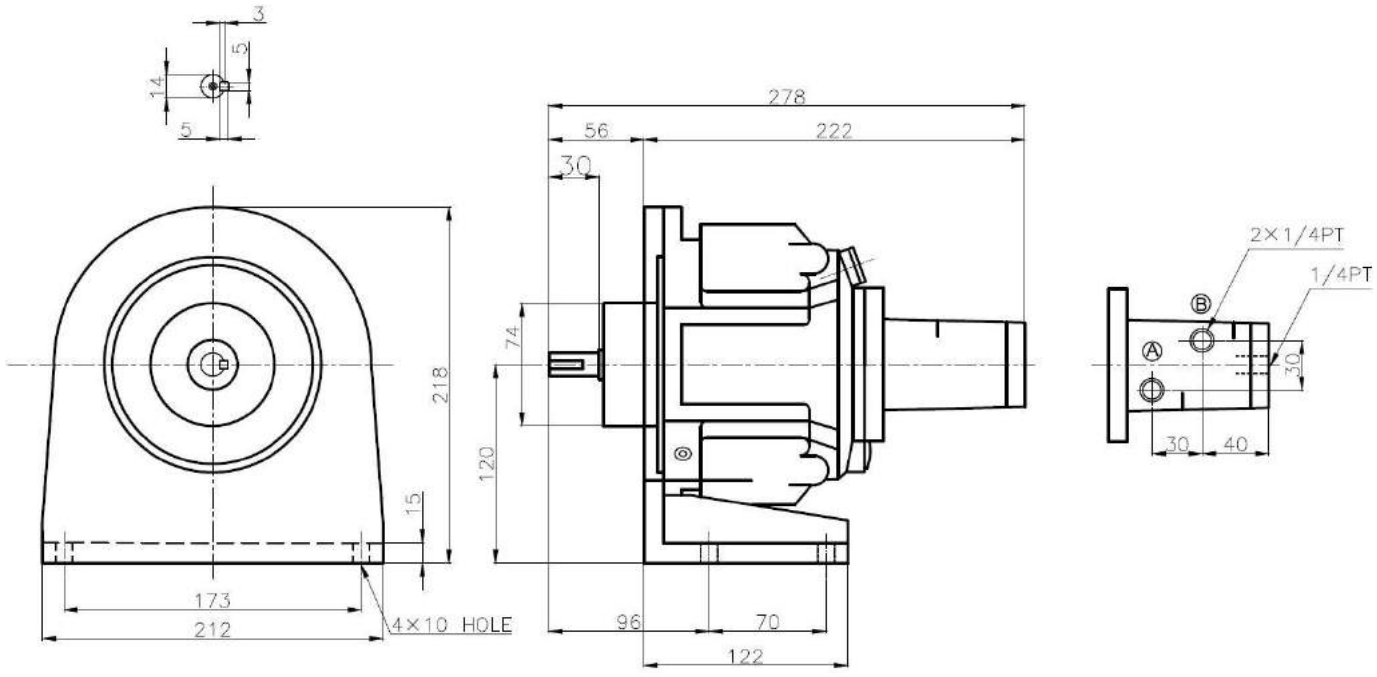




M9-F Face



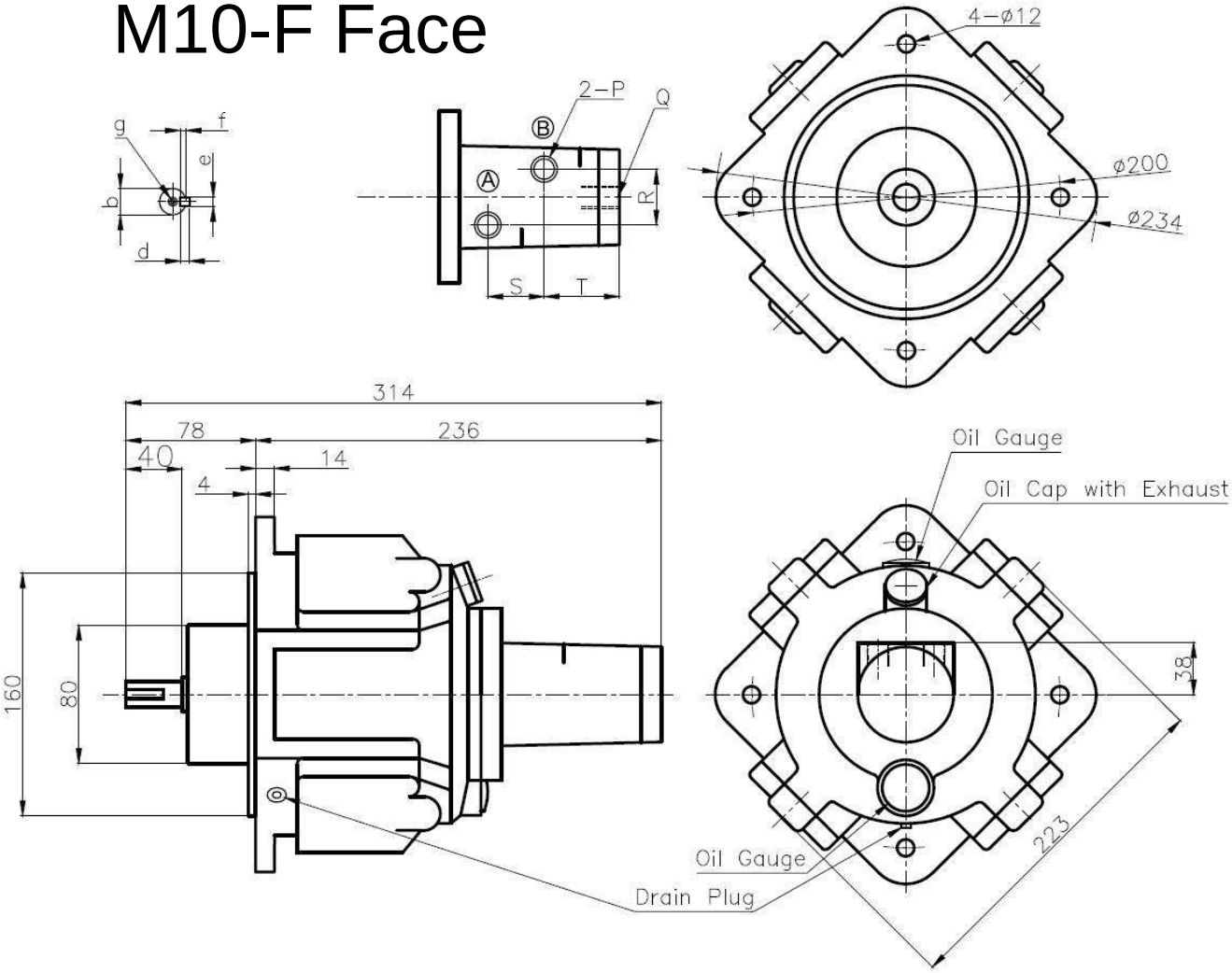
M9-L Foot



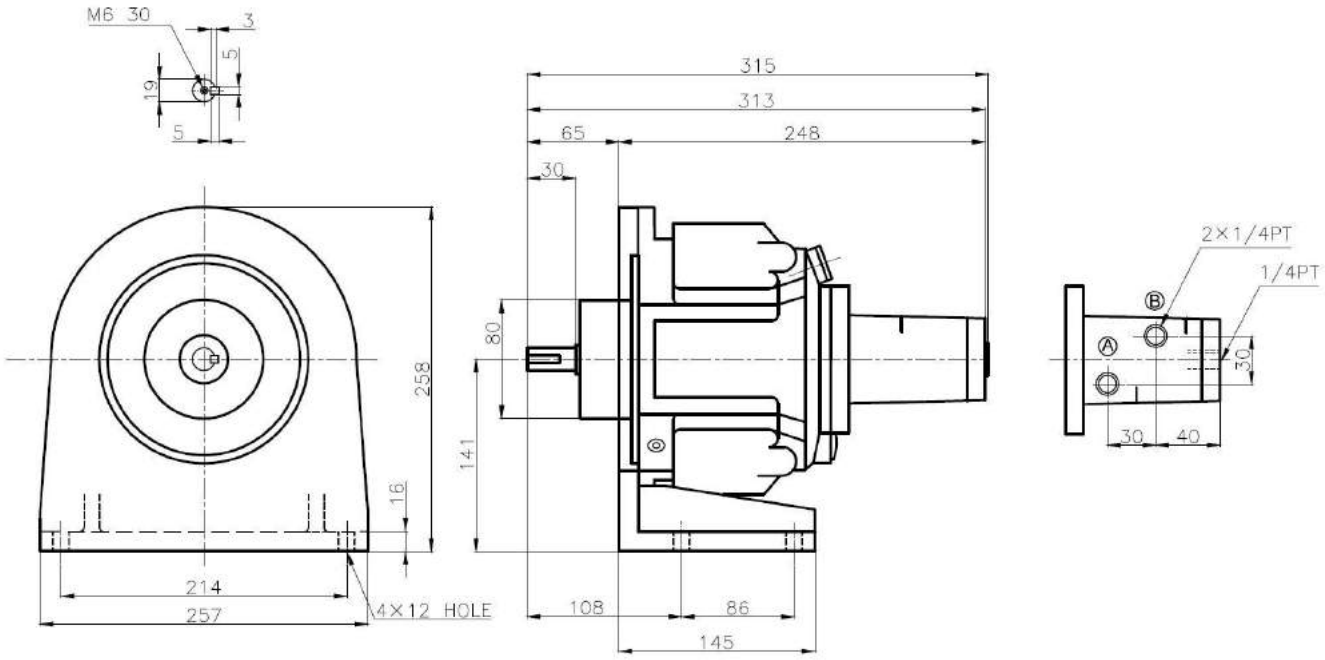
Performance Graphs - M9 Series

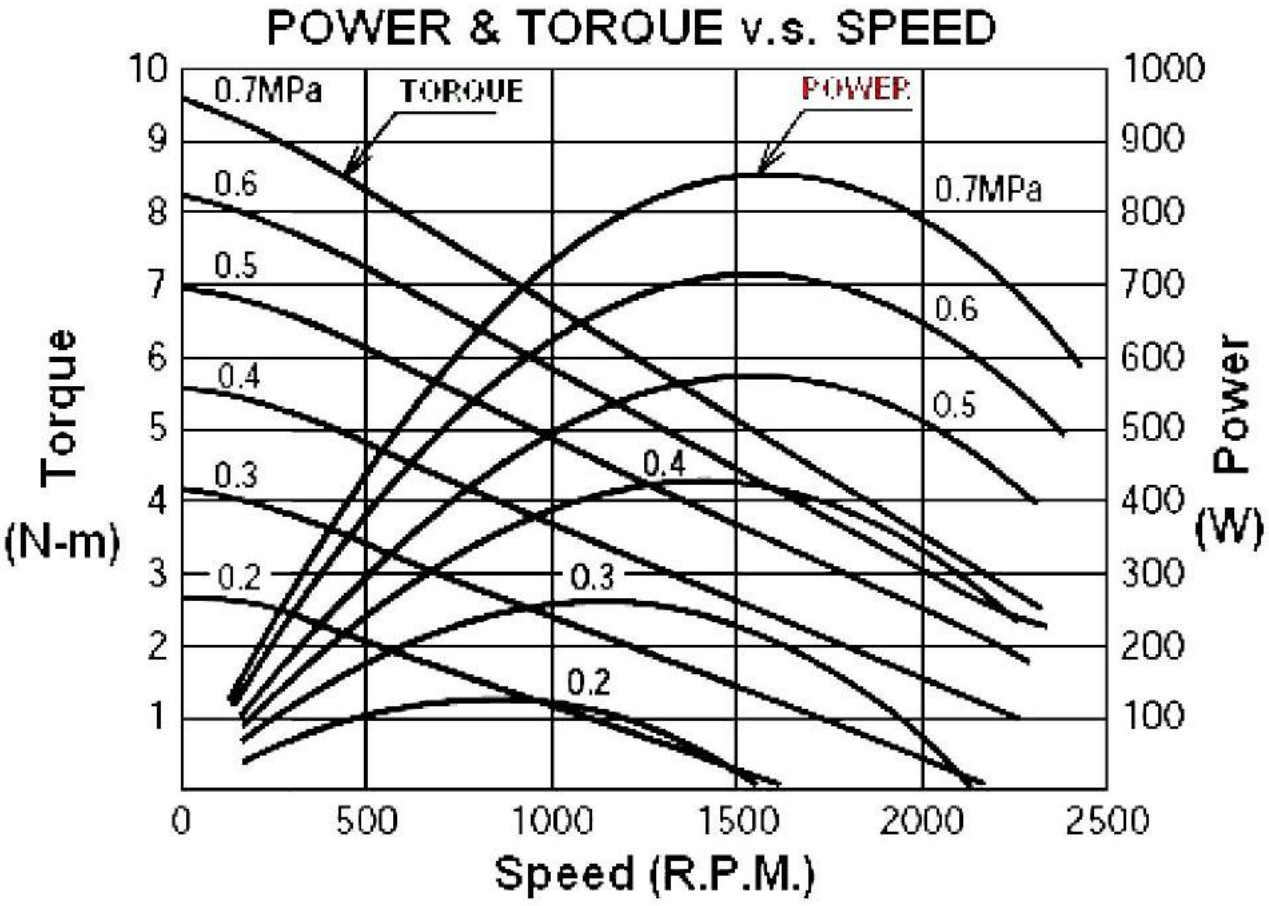
Please call our office for details.

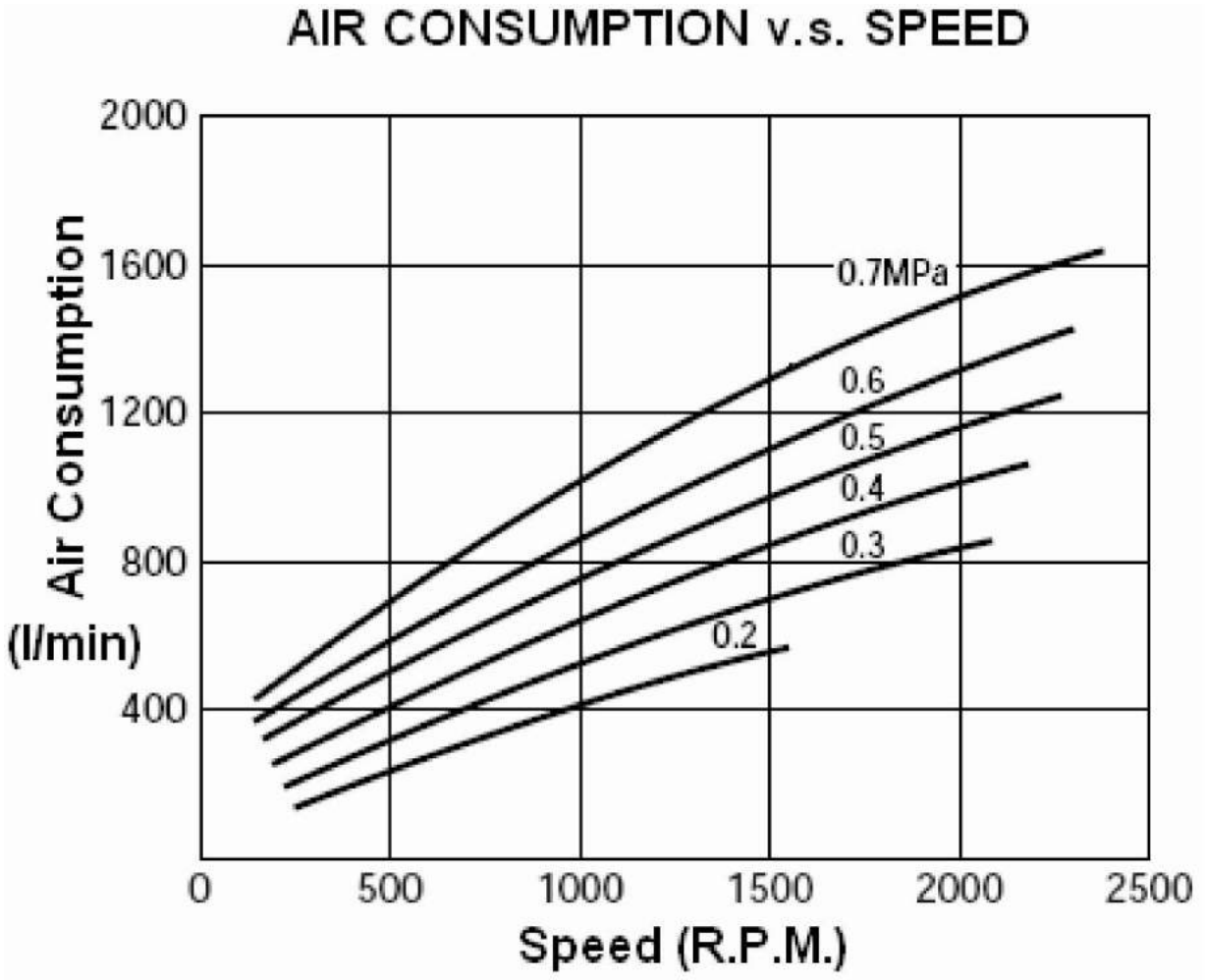
M10-F Face



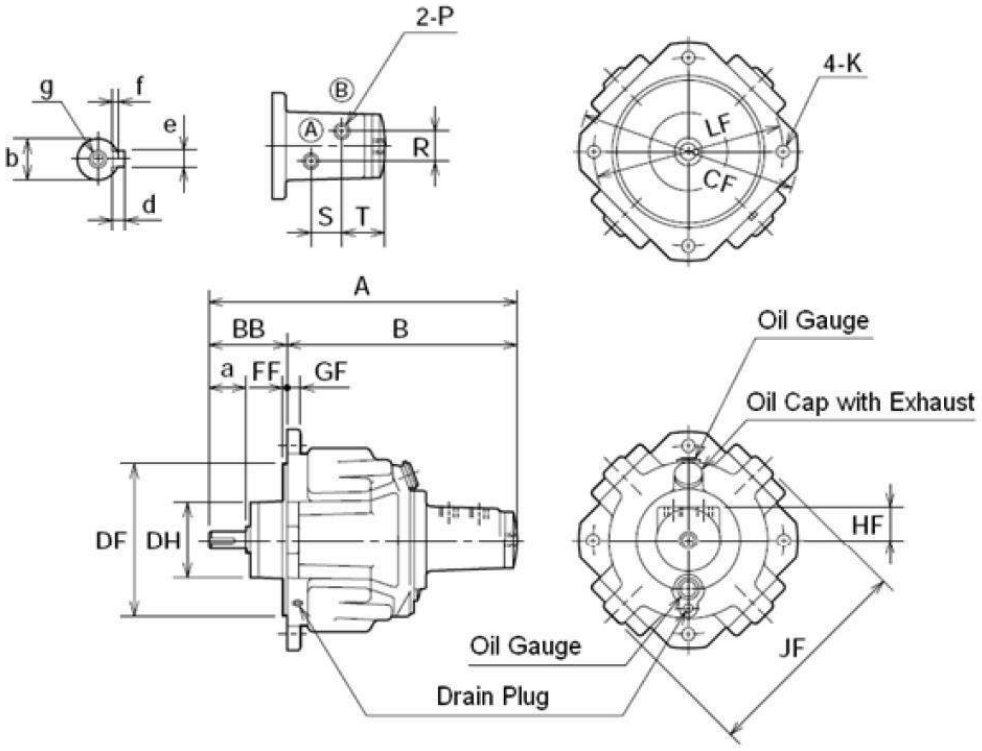
M10-L Foot




POWER & TOROQUE v.s. SPEED
TORQUE
POWER
0.7MPa
0.6
0.5
0.4
0.3
0.2
Torque
(N-m)
Power
(W)
Speed (R.P.M.)
0
500
1000
1500
2000
2500

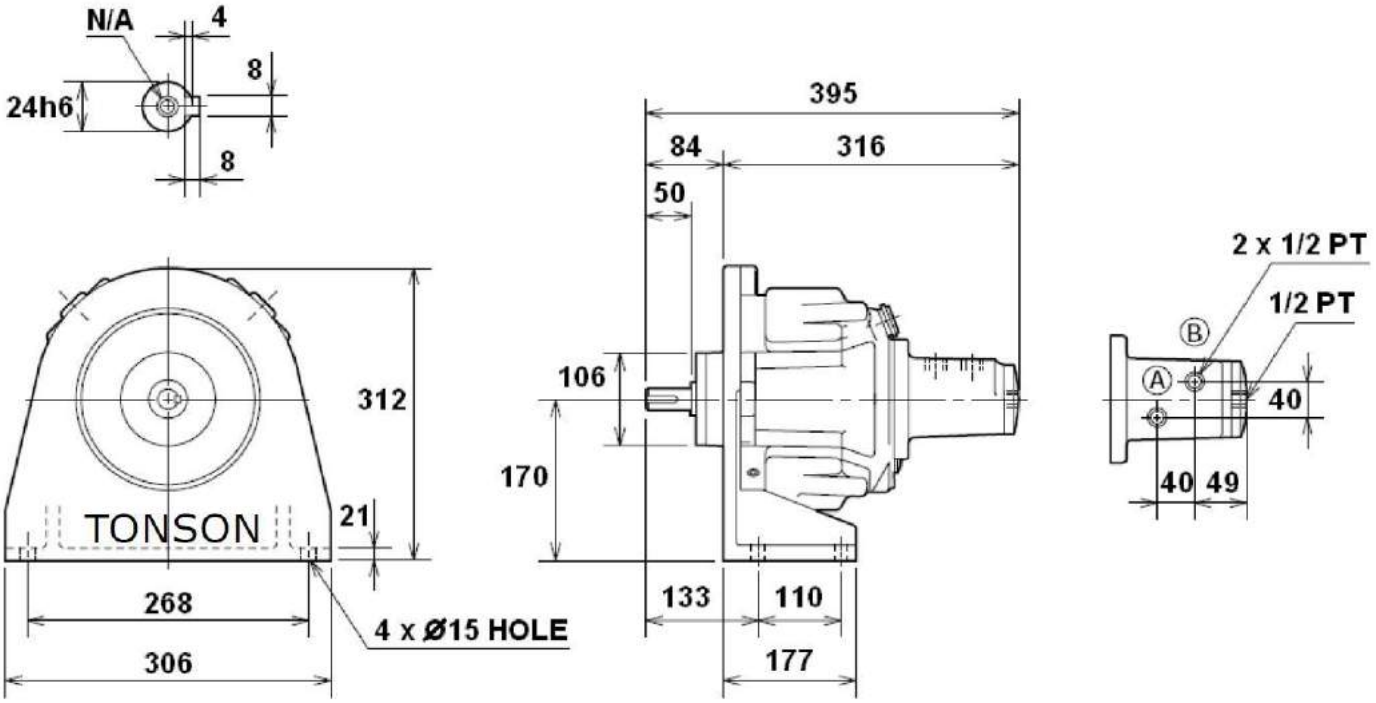

AIR CONSUMPTION v.s. SPEED
Air Consumption
(l/min)
0.7MPa
0.6
0.5
0.4
0.3
0.2
Speed (R.P.M.)
0
500
1000
1500
2000
2500

M11-F Face

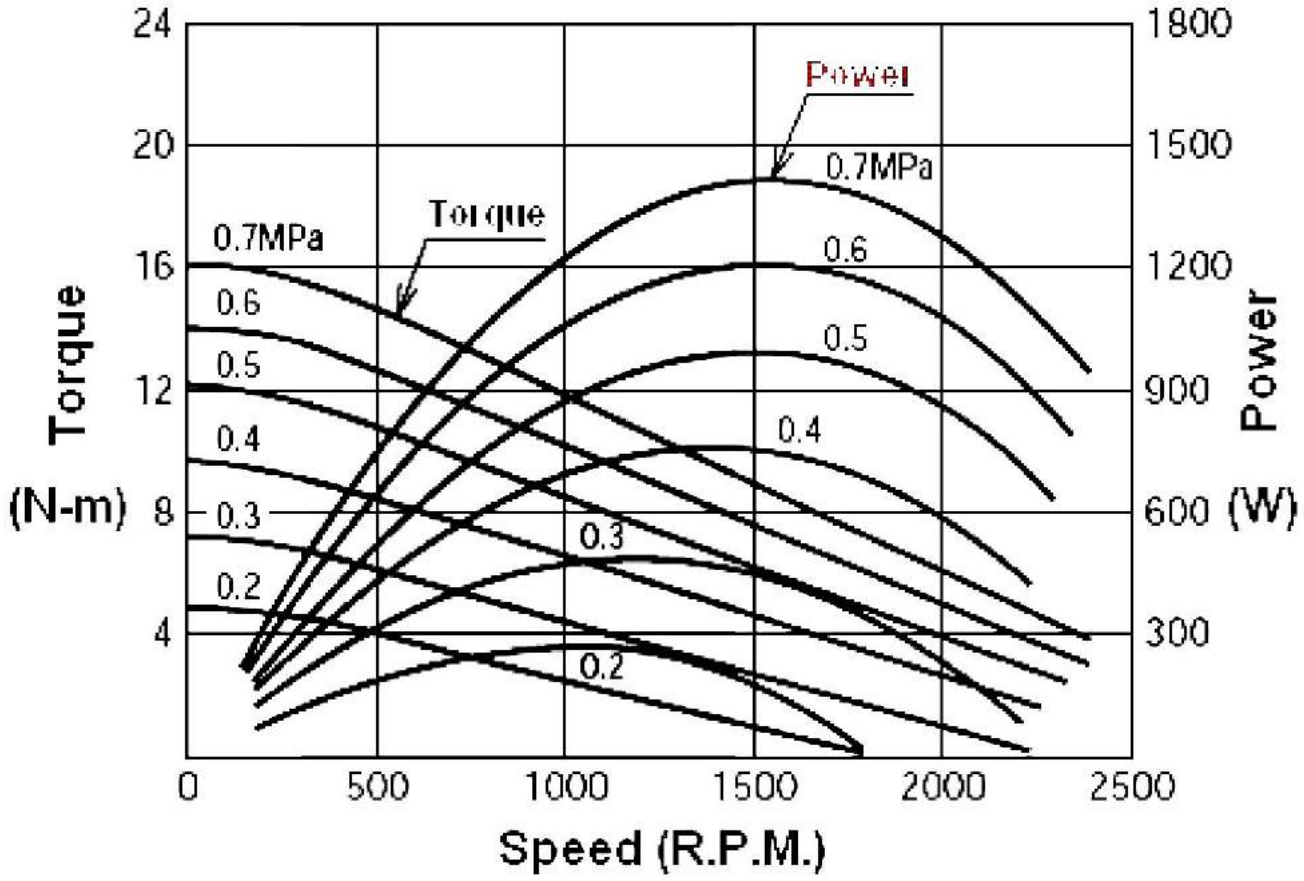


Symbol	Dimension (mm)
A	395
B	295
BB	100
CF	275
DF	190
DH	106
FF	4
GF	16
HF	43
JF	274
K	DIA15
LF	240
P	1/2"
R	40
S	40
T	49
Shaft	
a	50
b	24
d	8
e	8
f	4
g	M8 15 DEEP

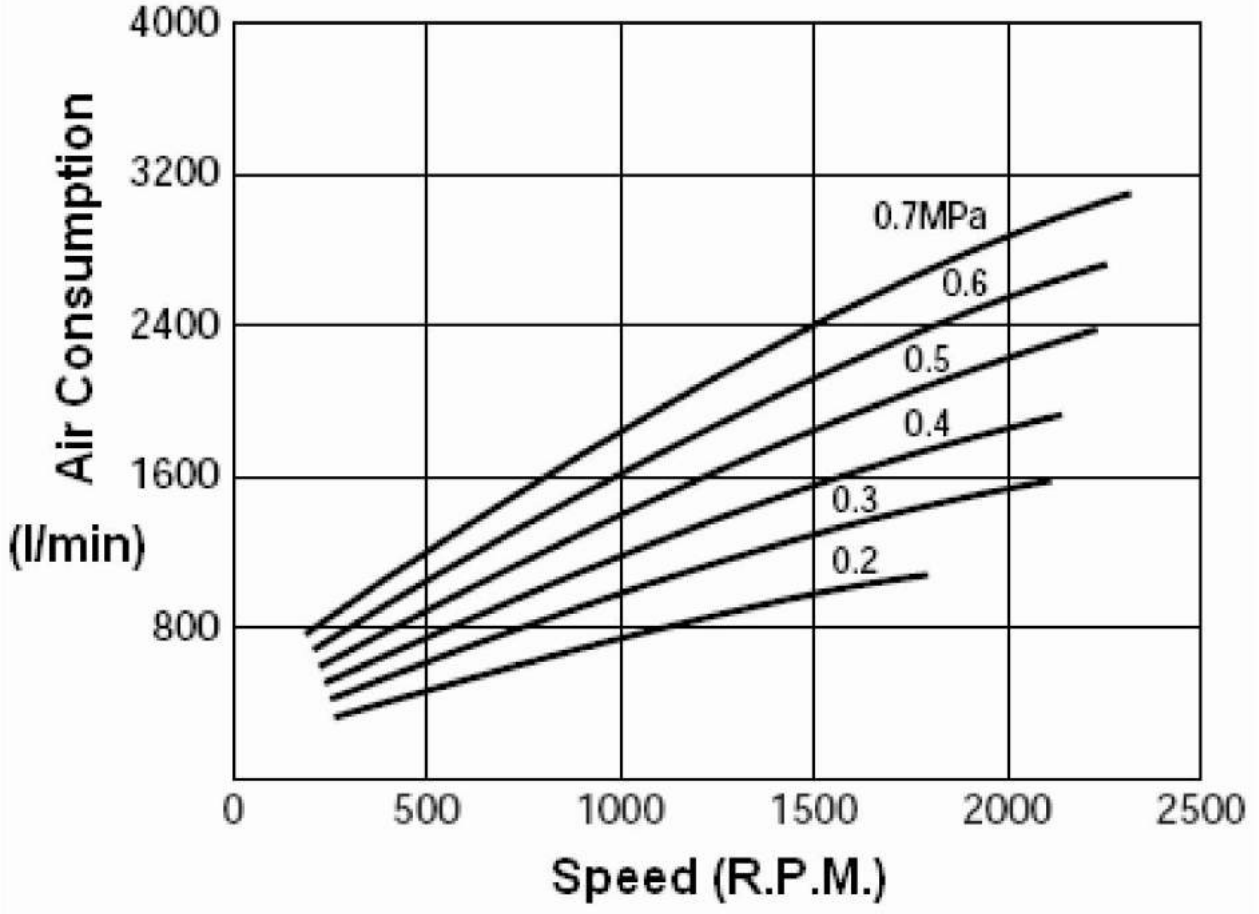
M11-L Foot



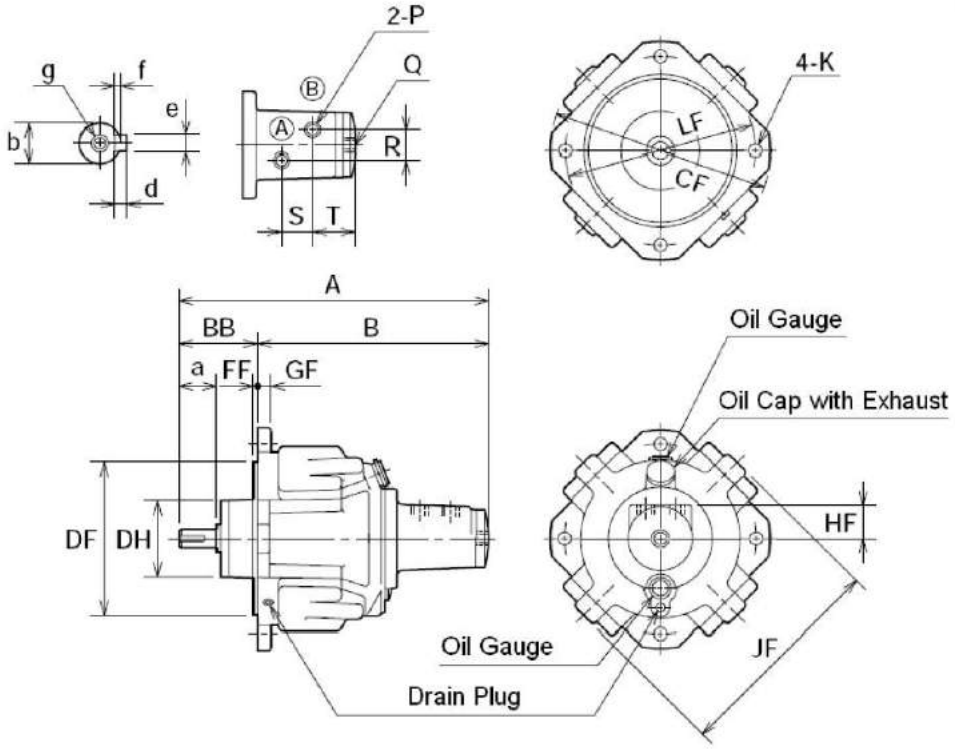
POWER & TORQUE v.s. SPEED



AIR CONSUMPTION v.s. SPEED

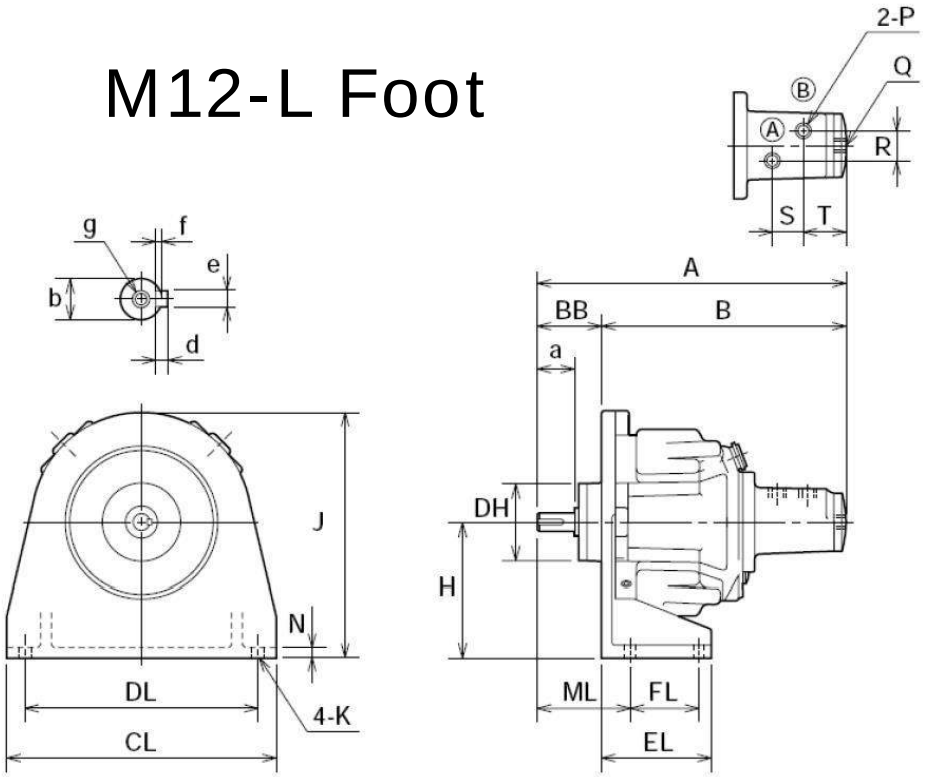


M12-F Face



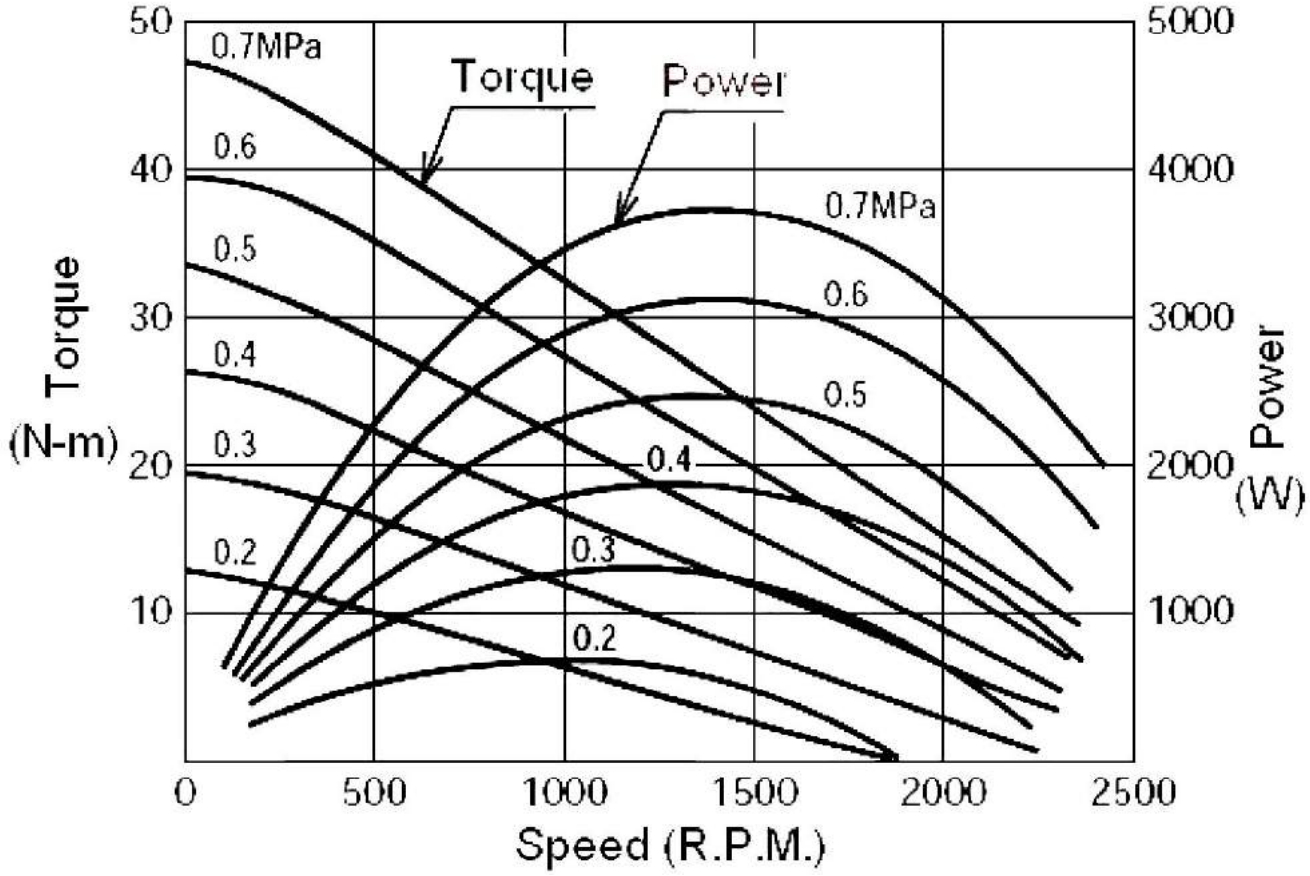
Symbol	Dimension (mm)
A	522
B	380
BB	142
CF	340
DF	250
DH	132
FF	5
GF	20
HF	65
JF	366
K	DIA15
LF	306
P	1"
Q	1"
R	60
S	60
T	65
Shaft	
a	60
b	28
d	8
e	8
f	4.5
g	M10 20DEEP

M12-L Foot

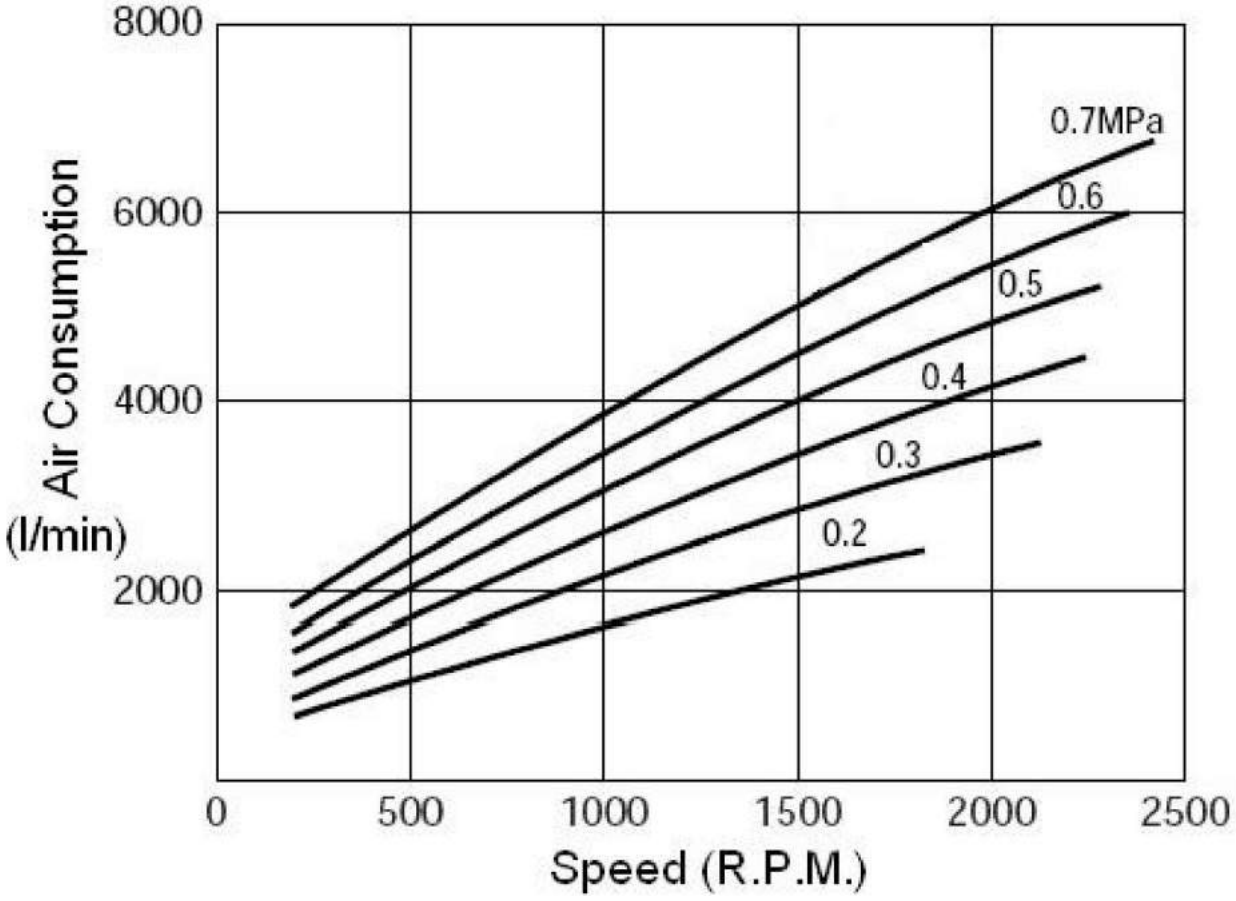


Symbol	Dimension (mm)
A	522
B	380
BB	142
CF	340
DF	250
DH	132
FF	5
GF	20
HF	65
JF	366
K	DIA15
LF	306
P	1"
Q	1"
R	60
S	60
T	65
Shaft	
a	60
b	28
d	8
e	8
f	4.5
g	M10 20DEEP

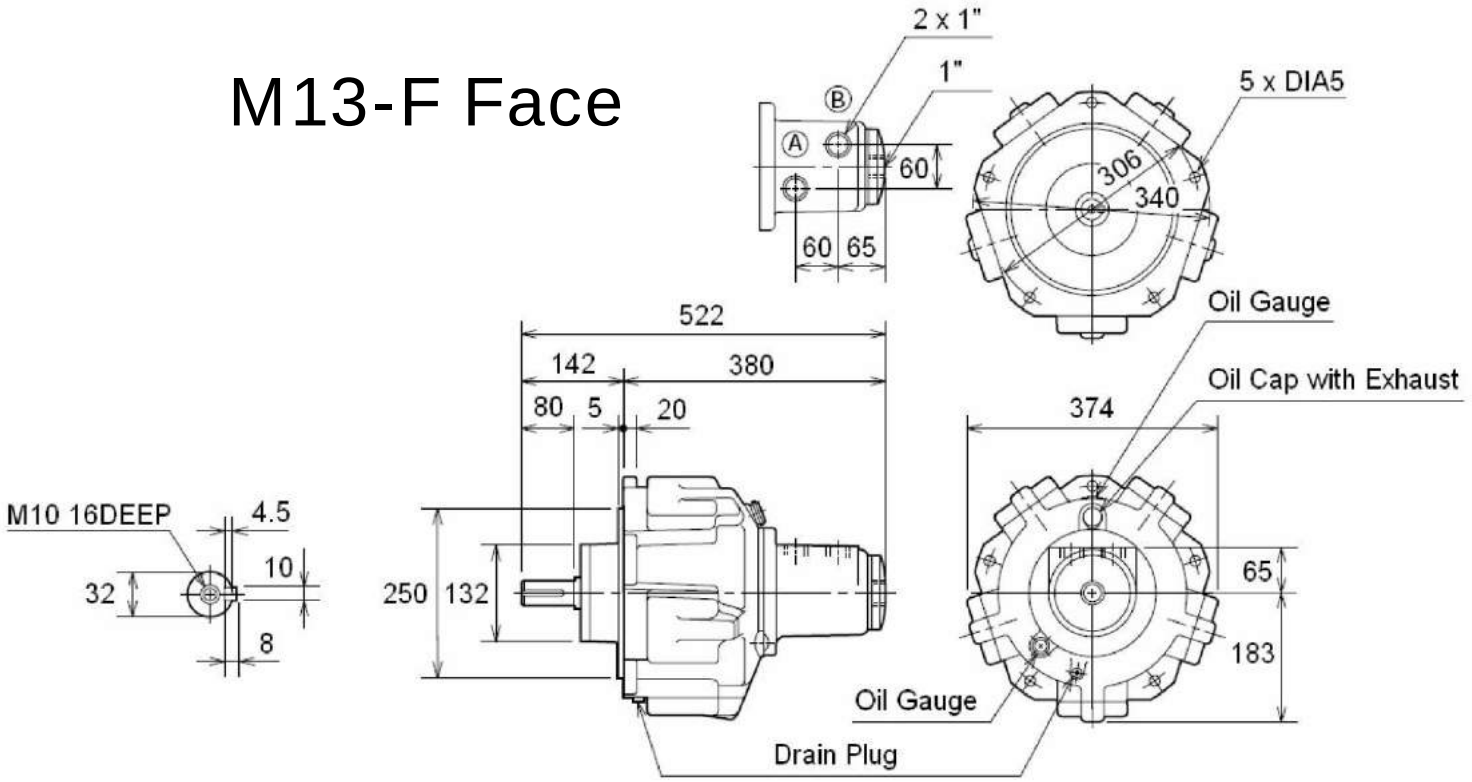
POWER & TORQUE v.s. SPEED



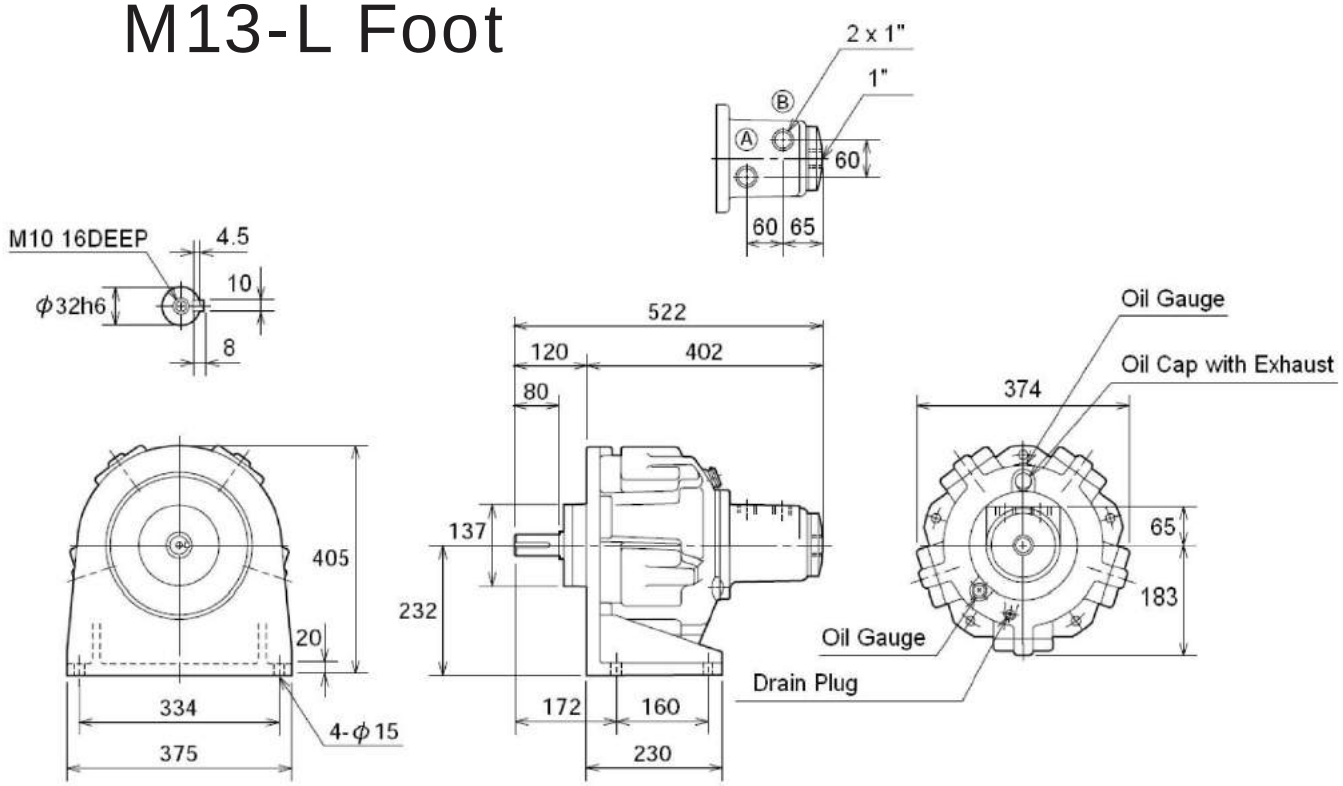
AIR CONSUMPTION v.s. SPEED



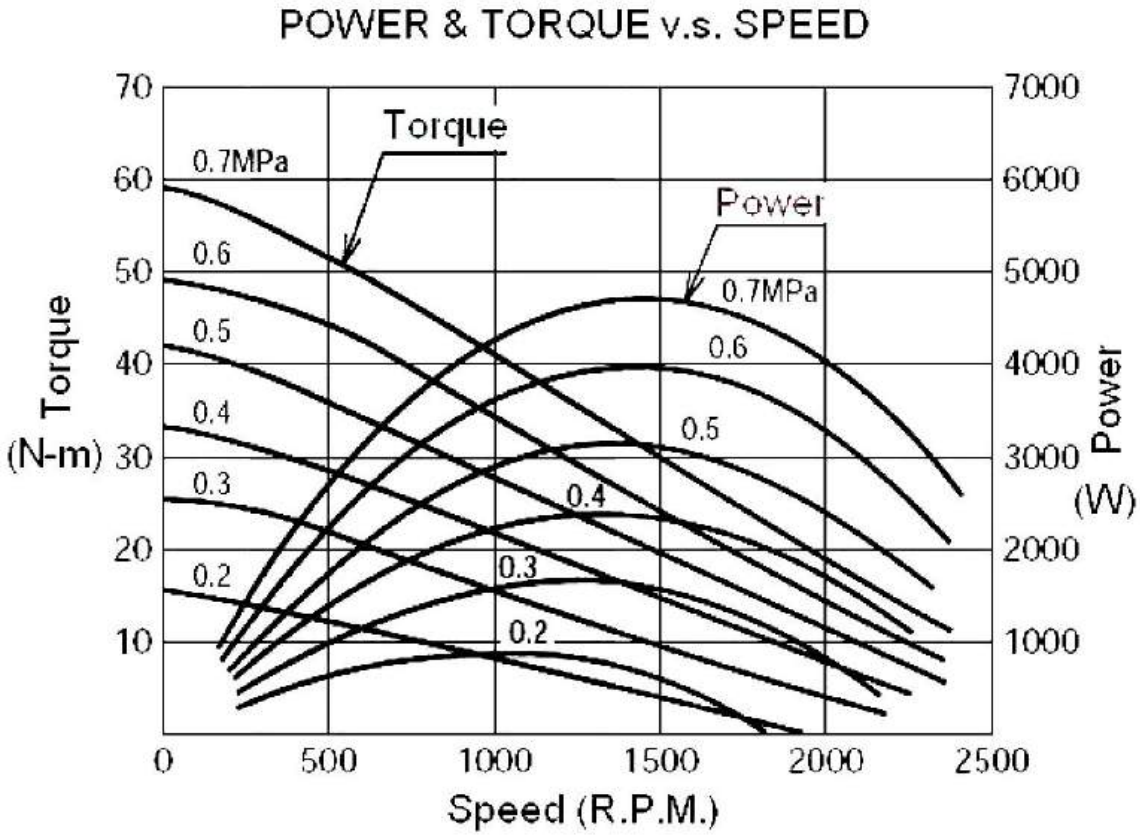
M13-F Face

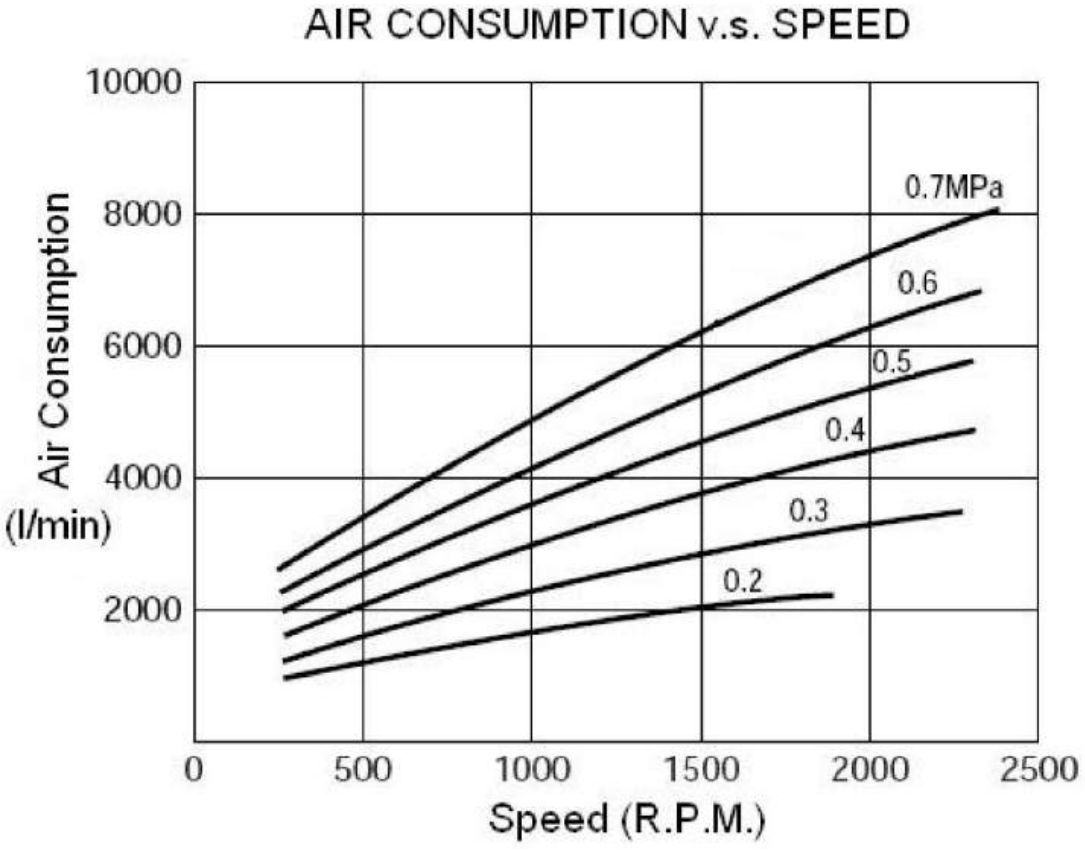


M13-L Foot

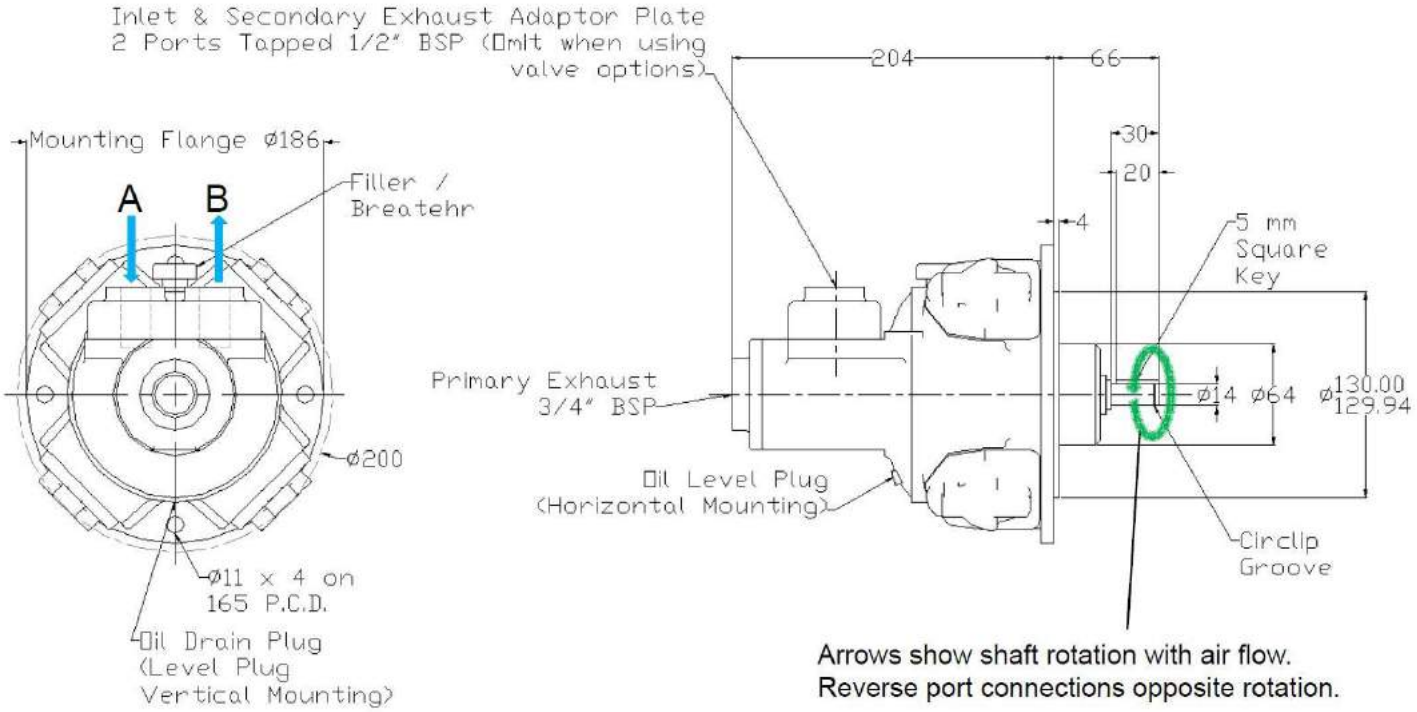


Performance Graphs - M13 Series

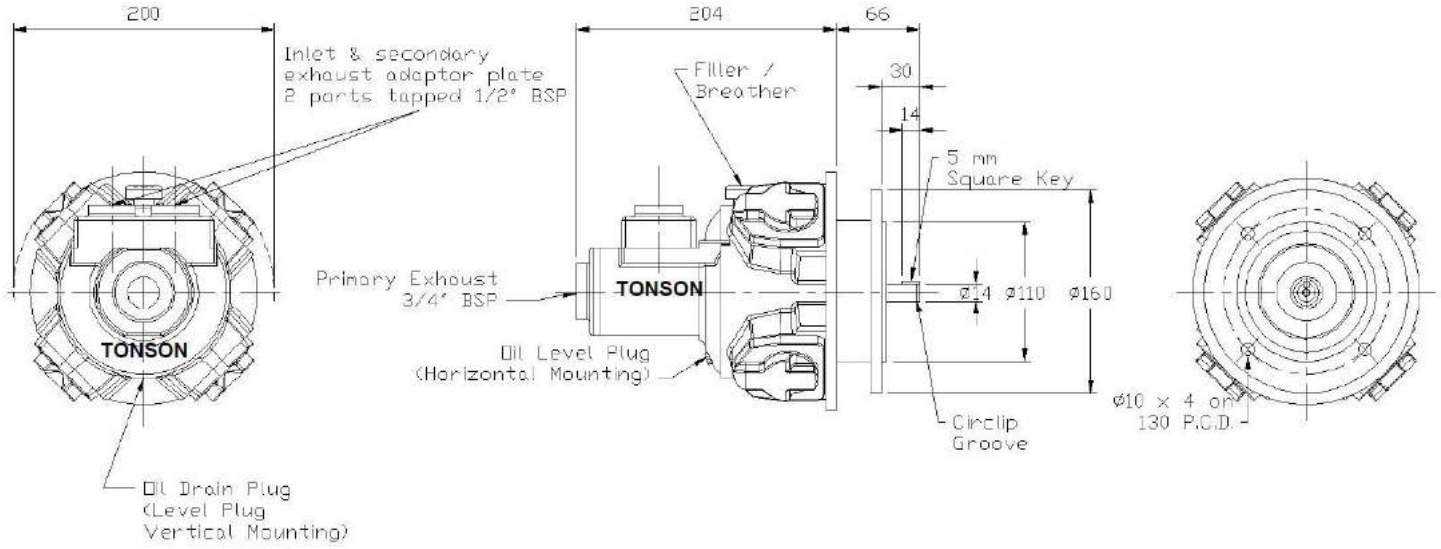




M13S-F (RM110)

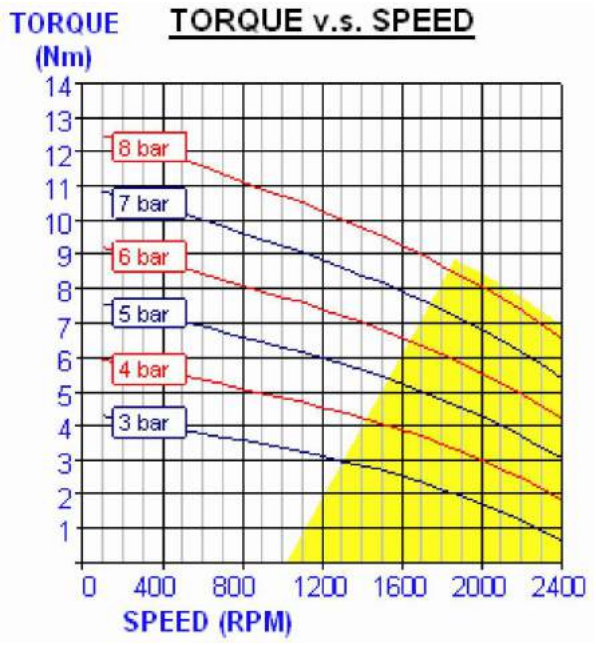


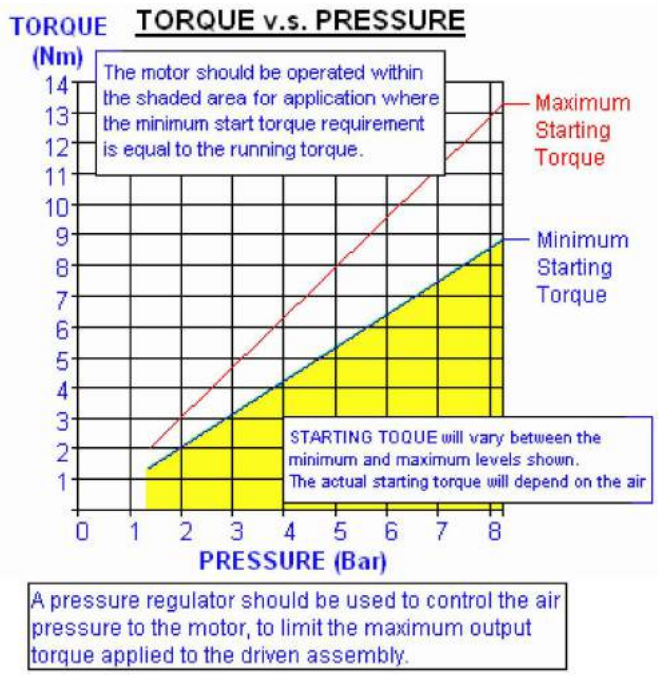
M13S-I (RM110 IEC D71 B5)



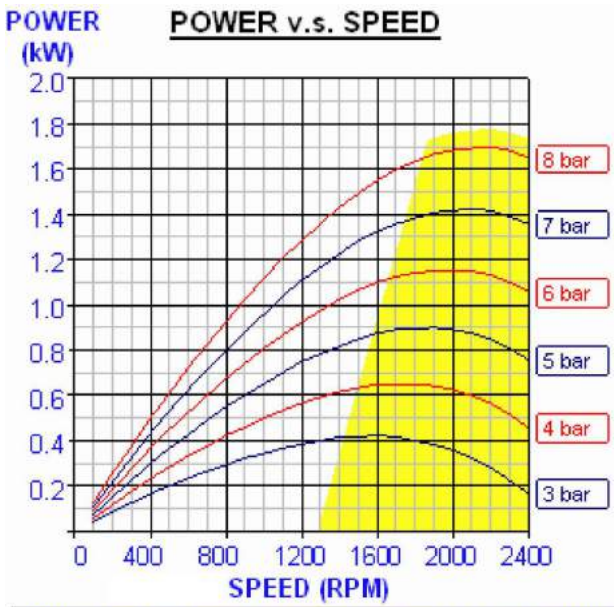
Performance Graphs - M13S Series

M13S Series
Piston Air Motors

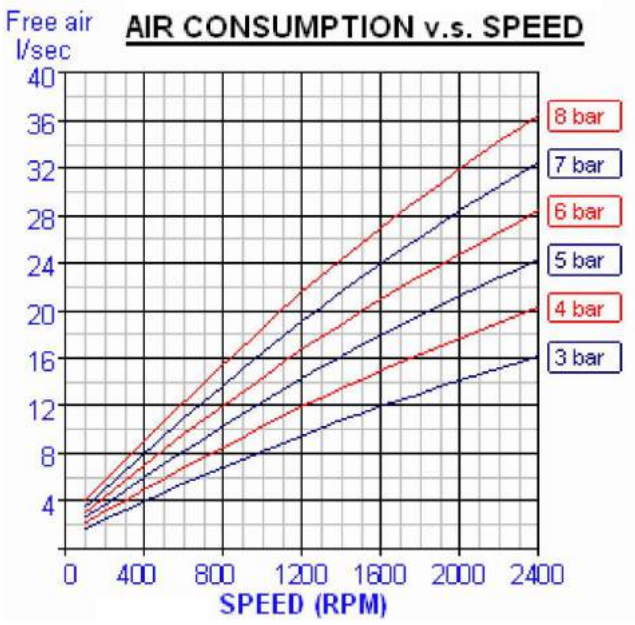




A pressure regulator should be used to control the air pressure to the motor, to limit the maximum output torque applied to the driven assembly.



Motor should be operating at speed as close as possible to the speed at which PEAK POWER is achieved to give optimum performance and air consumption.



AIRLINE FILTRATION AND LUBRICATION

Use 64 micron filtration or better.
Inject oil into the inlet port prior to initial start-up.
Lubricator drop rate at 3 to 4 drops/min for continuous operation
Lubricator drop rate at 6 to 8 drops/min for intermittent operation

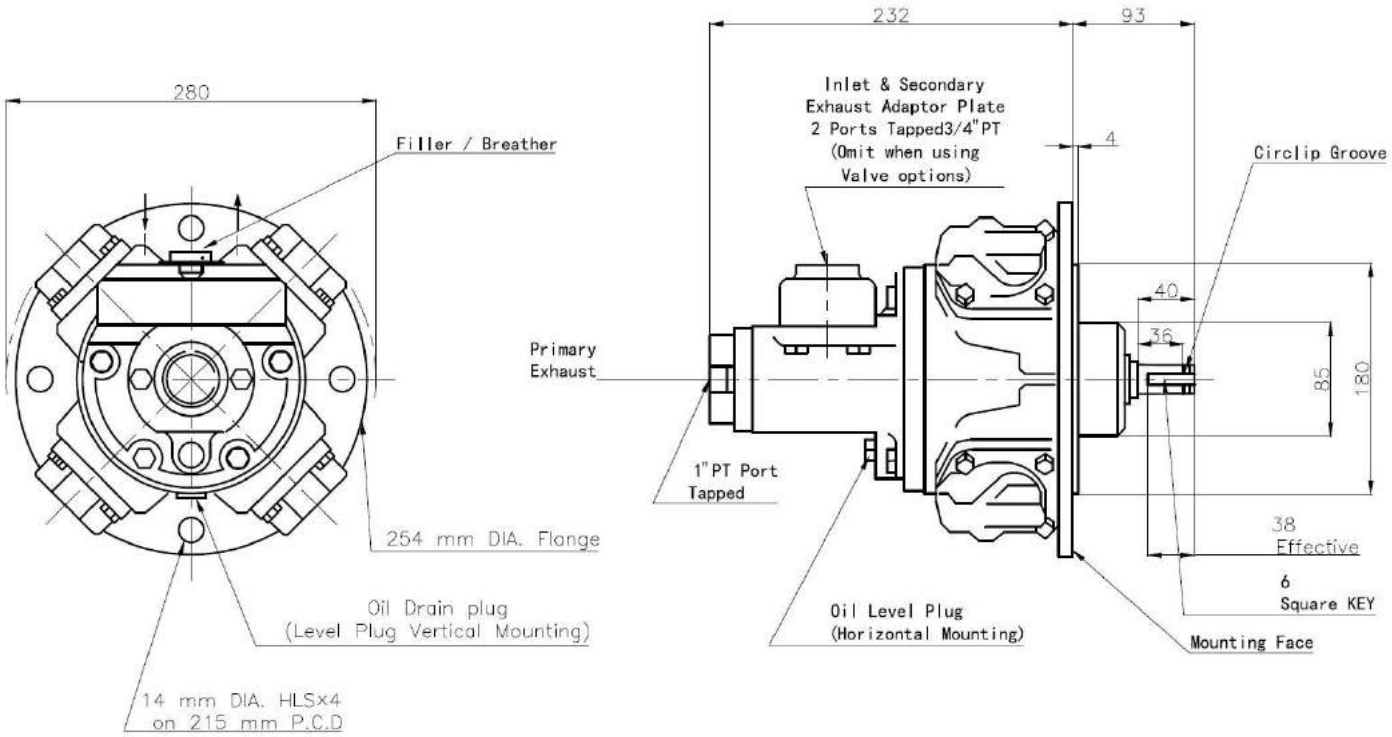
GENERAL DATA

Mass (motor only): 14 kgs (31 lbs)
Max. Overhung Force on Motor Shaft: 890 N (200 lbf)

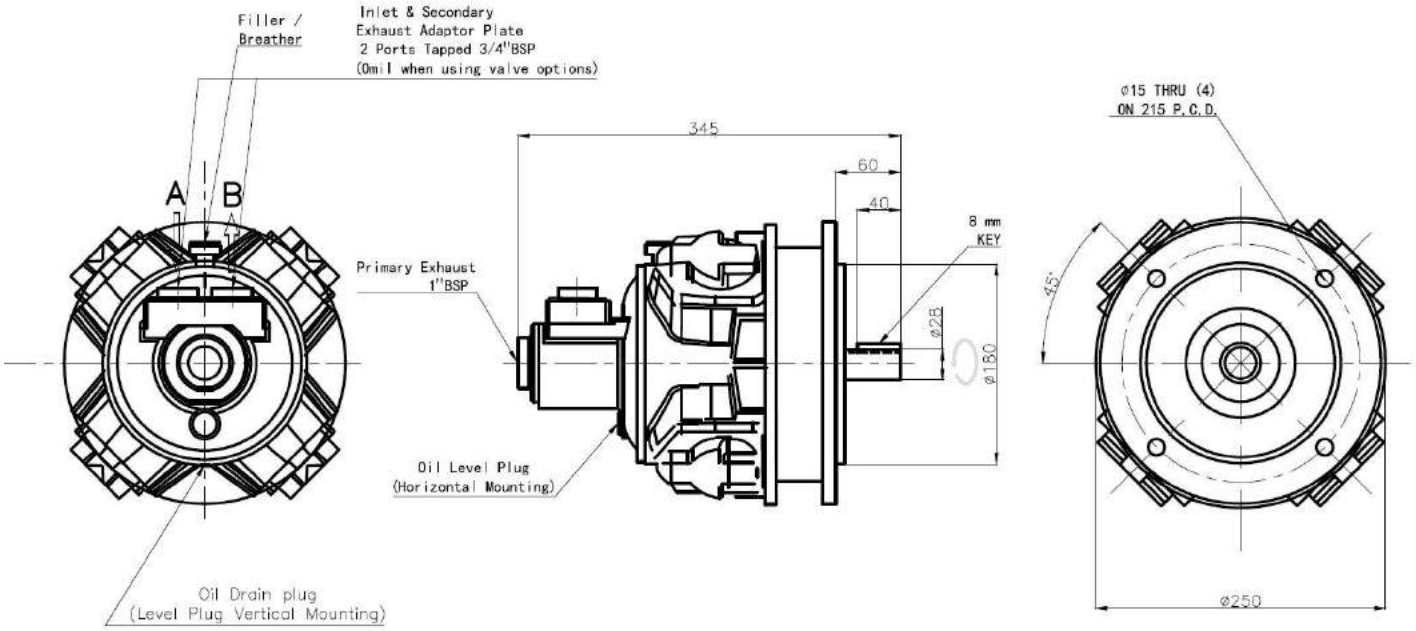
LUBRICATING OIL CAPACITIES

Horizontal: 75 ml Vertical: 450 ml
Good quality hydraulic oil with a viscosity of around 100 cSt (460 SSU)

M14-F (RM210)

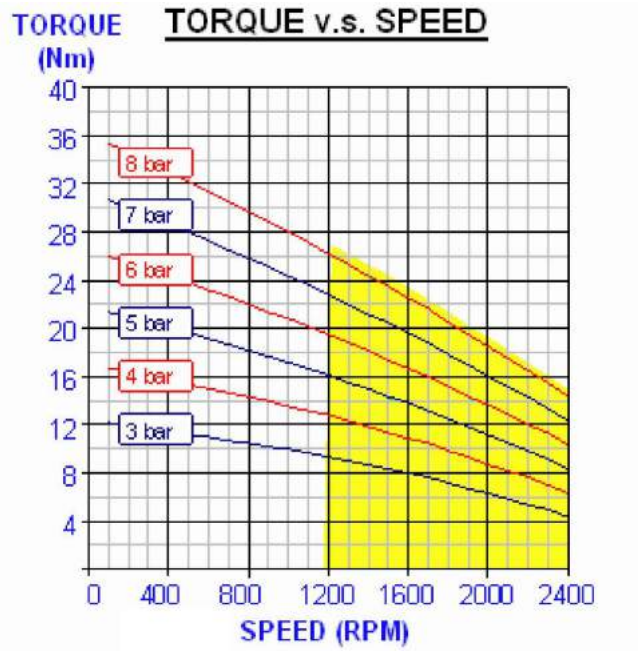


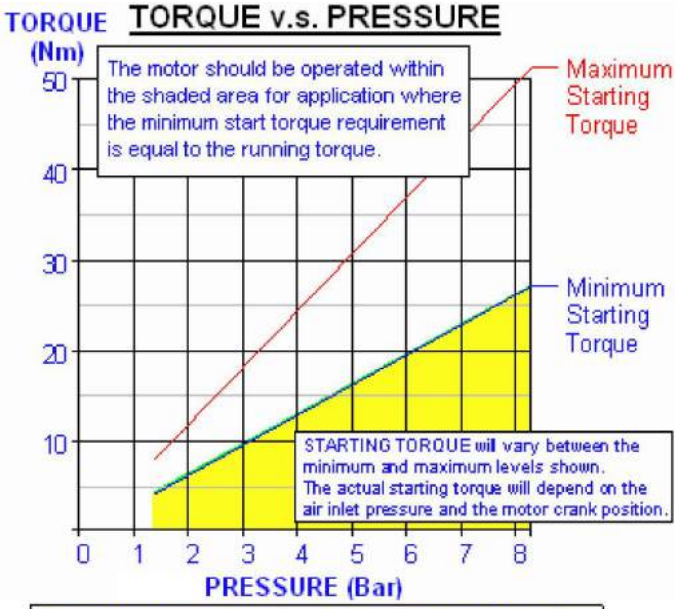
M14-I (RM210 IEC D100 B5)



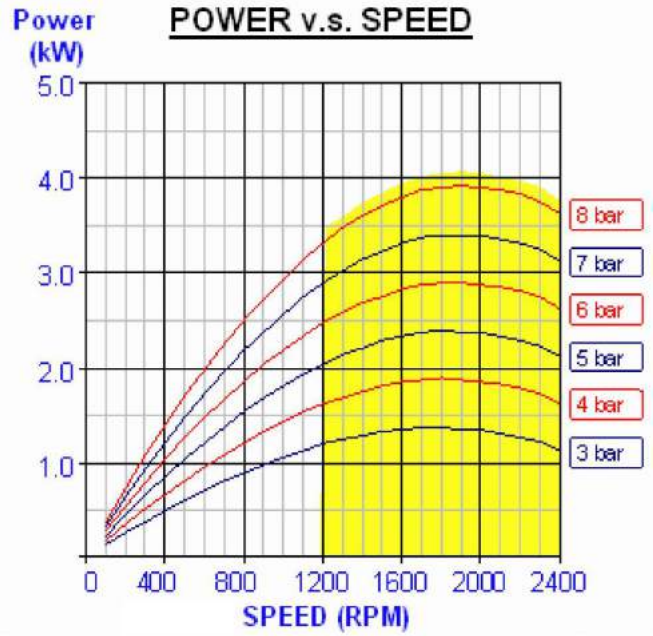
Performance Graphs - M14 Series

M14 Series
Piston Air Motors

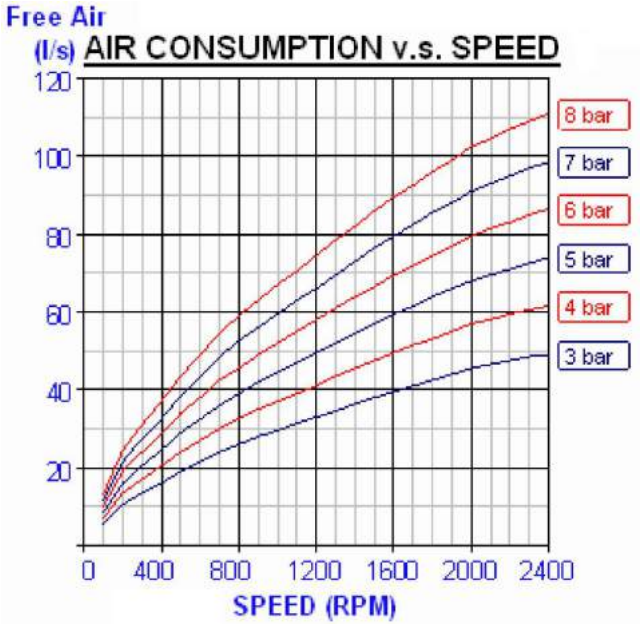




A pressure regulator should be used to control the air pressure to the motor, to limit the maximum output torque applied to the driven assembly.



Motor should be operating at speed as close as possible to the speed at which PEAK POWER is achieved to give optimum Performance and air consumption.



AIRLINE FILTRATION & LUBRICATION

Use 64 micron filtration or better.
Inject oil into the inlet port prior to initial start-up.
Lubricator drop rate at 4 to 5 drops/min for continuous operation
Lubricator drop rate at 8 to 10 drops/min for intermittent t operation

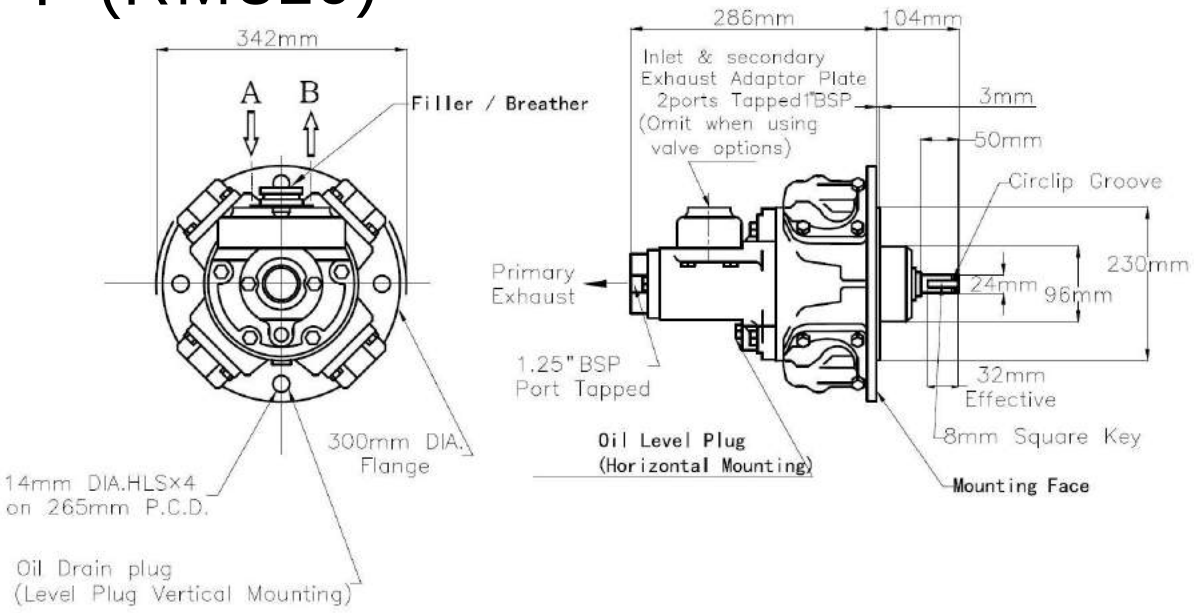
GENERAL DATA

Mass (motor only): 26 kgs (57.3 lbs)
Max. Overhung Force on Motor Shaft: 890 N (200 lbf)

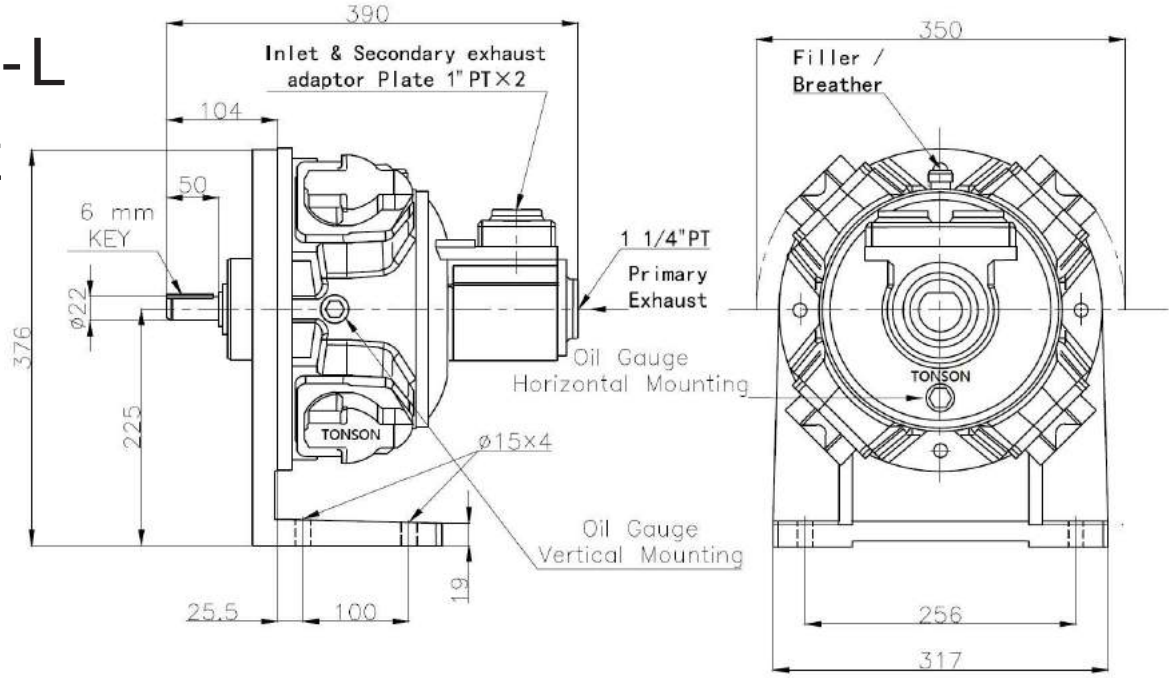
LUBRICATING OIL CAPACITIES

Horizontal: 330 ml Vertical: 450 ml
Good quality hydraulic oil with a viscosity of around 100 cSt (460 SSU)

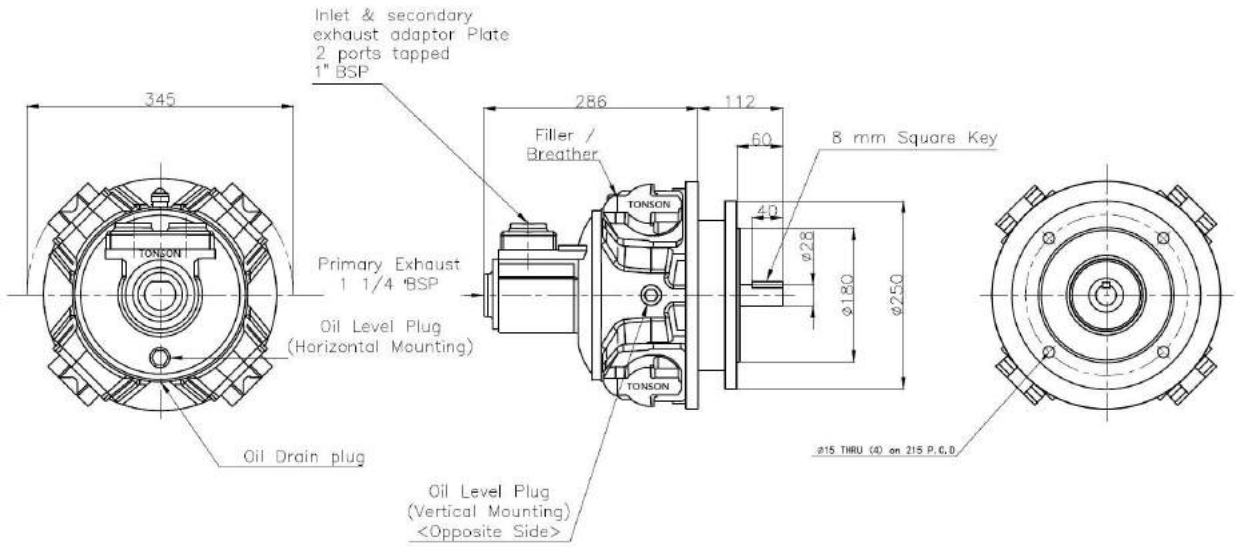
M15-F (RM310)



M15-L Foot

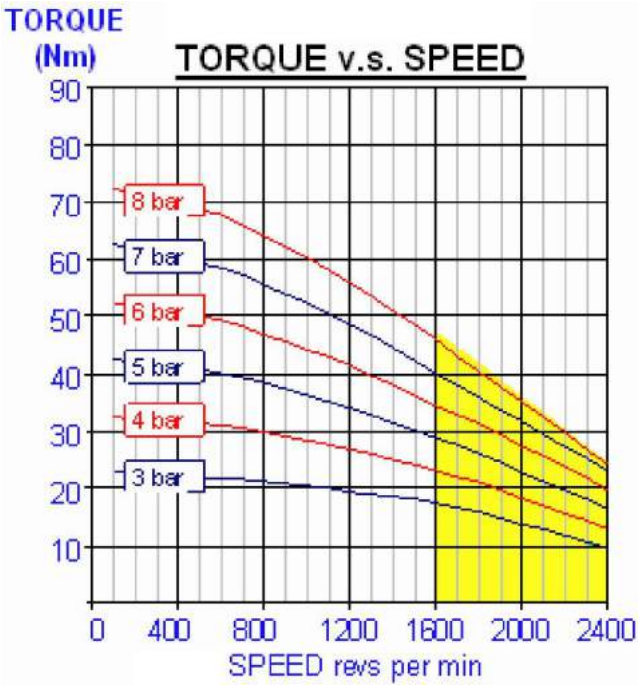


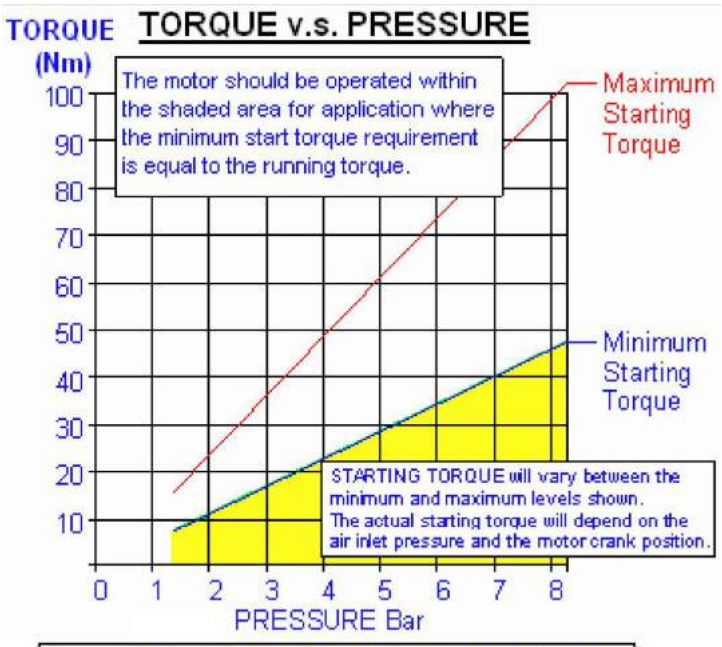
M15-I (RM310 IEC D100 B5



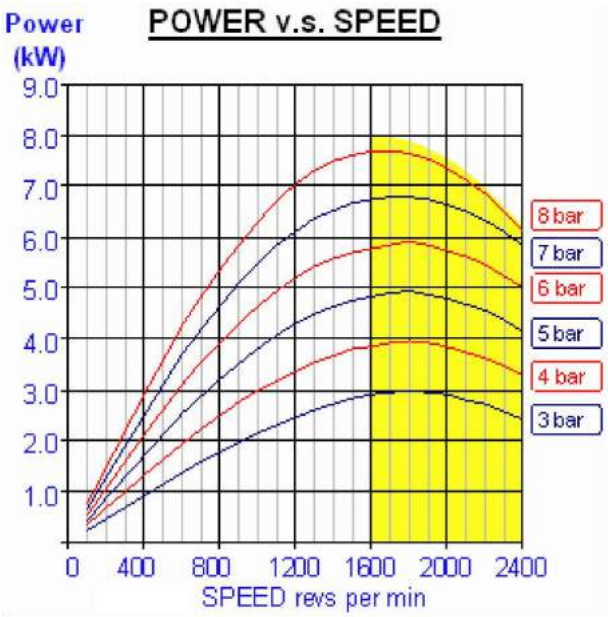
Performance Graphs - M15 Series

M15 Series
Piston Air Motors

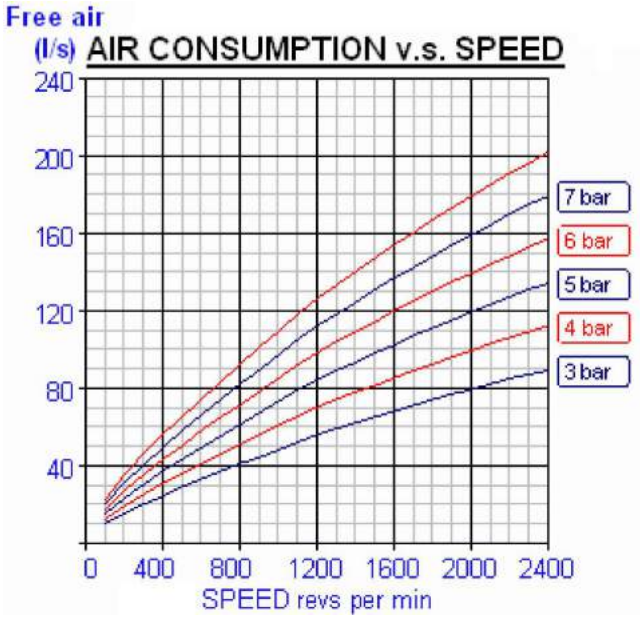




A pressure regulator should be used to control the air pressure to the motor, to limit the maximum output torque applied to the driven assembly.



Motor should be operating at speed as close as possible to the speed at which PEAK POWER is achieved to give optimum Performance and air consumption.



AIRLINE FILTRATION & LUBRICATION

Use 64 micron filtration or better.
Inject oil into the inlet port prior to initial start-up.
Lubricator drop rate at 5 to 6 drops/min for continuous operation
Lubricator drop rate at 10 to 12 drops/min for intermittent operation

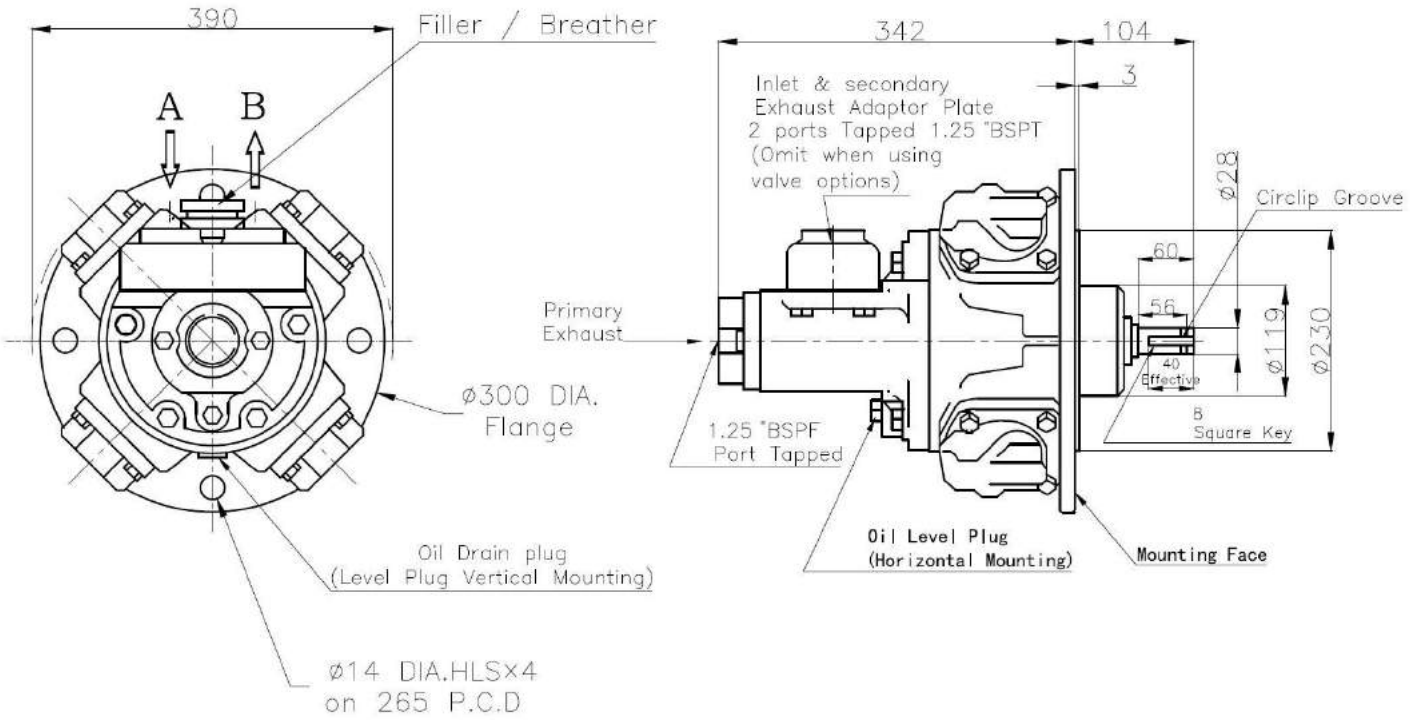
GENERAL DATA

Mass (motor only): 48 kgs (106 lbs)
Max. Overhung Force on Motor Shaft: 1330 N (300 lbf)

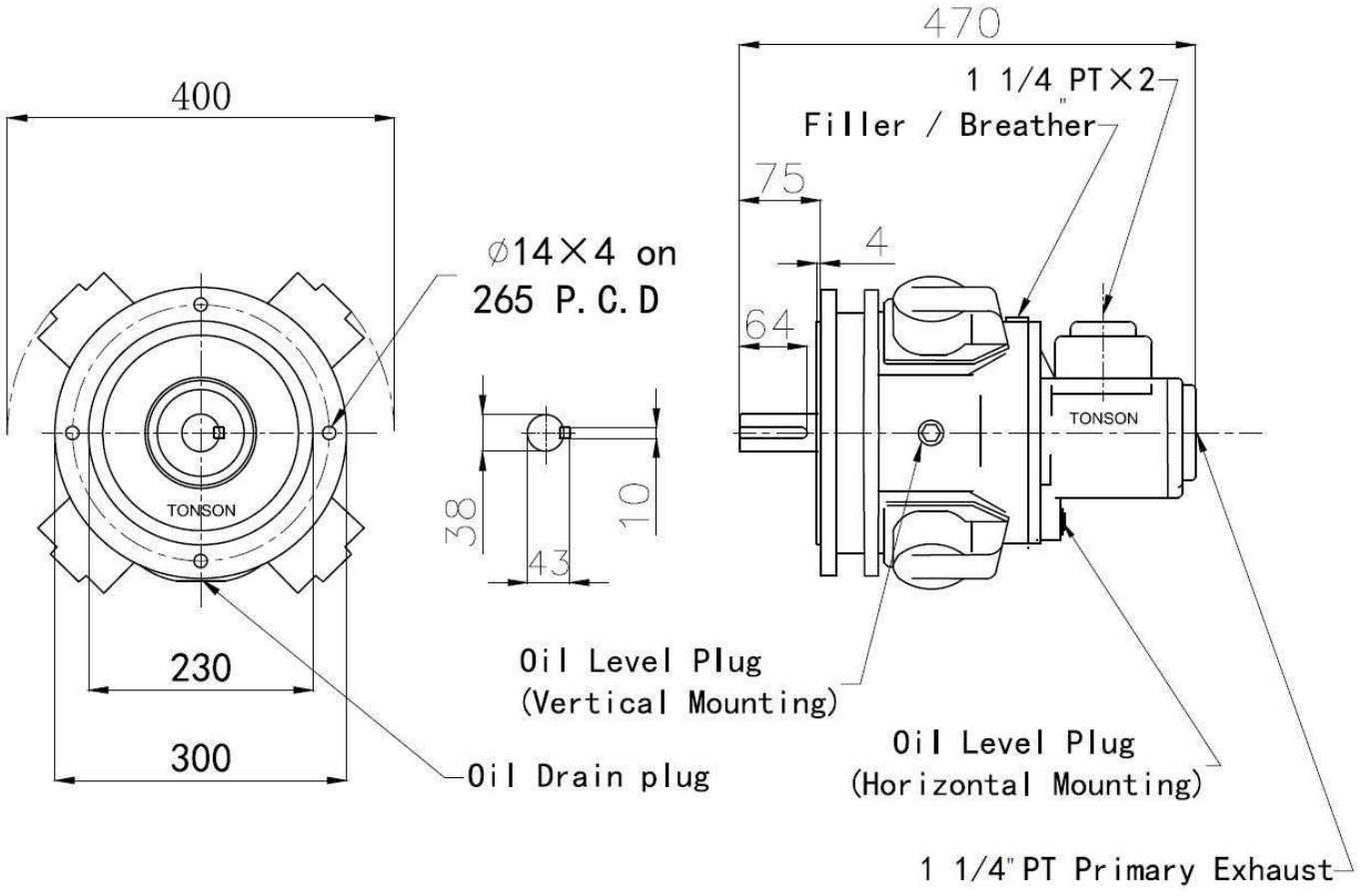
LUBRICATING OIL CAPACITIES

Horizontal: 350 ml Vertical: 600 ml
Good quality hydraulic oil with a viscosity of around 100 cSt (460 SSU)

M16-F (RM410)

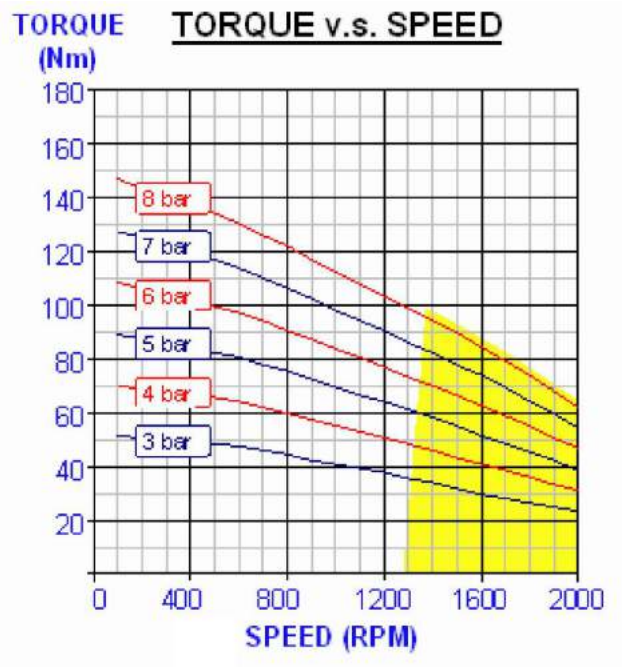


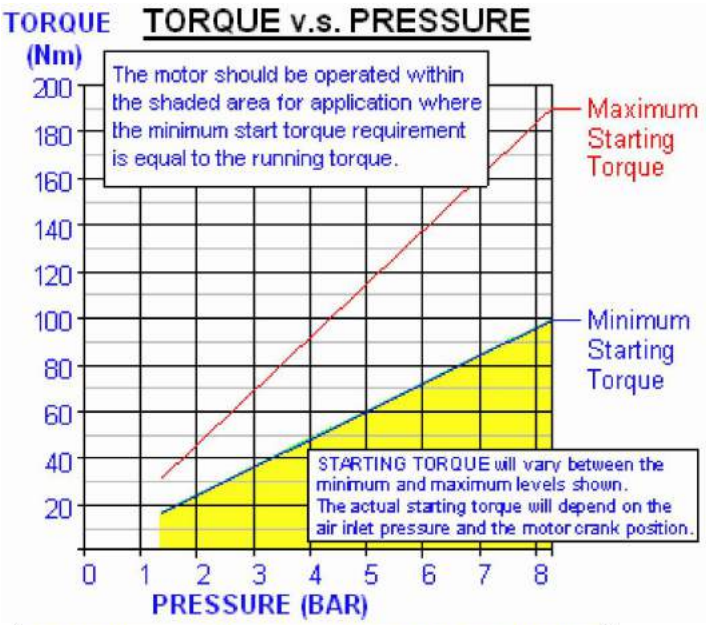
M16-I (RM410 IEC D132 B5)



Performance Graphs - M16 Series

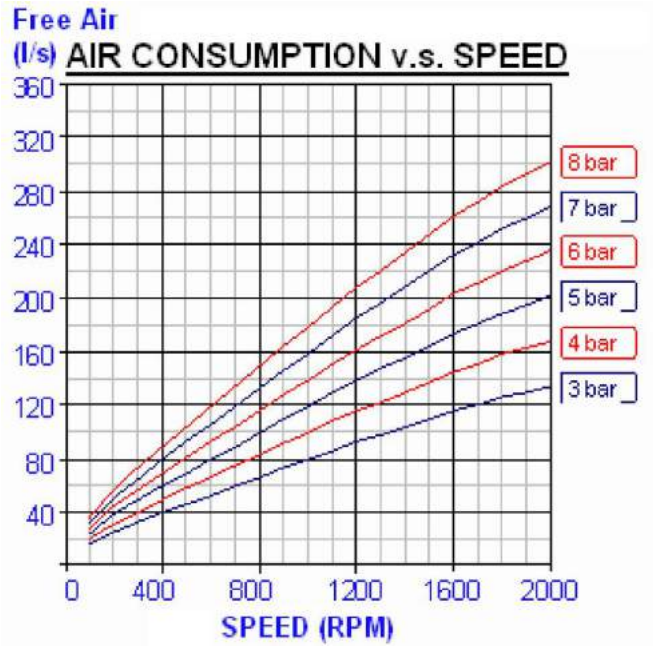
M16 Series
Piston Air Motors





A pressure regulator should be used to control the air pressure to the motor, to limit the maximum output torque applied to the driven assembly.

Motor should be operating at speed as close as possible to the speed at which PEAK POWER is achieved to give optimum performance and air consumption.



AIRLINE FILTRATION & LUBRICATION

Use 64 micron filtration or better.
Inject oil into the inlet port prior to initial start-up.
Lubricator drop rate at 6 to 8 drops/min for continuous operation
Lubricator drop rate at 12 to 16 drops/min for intermittent operation

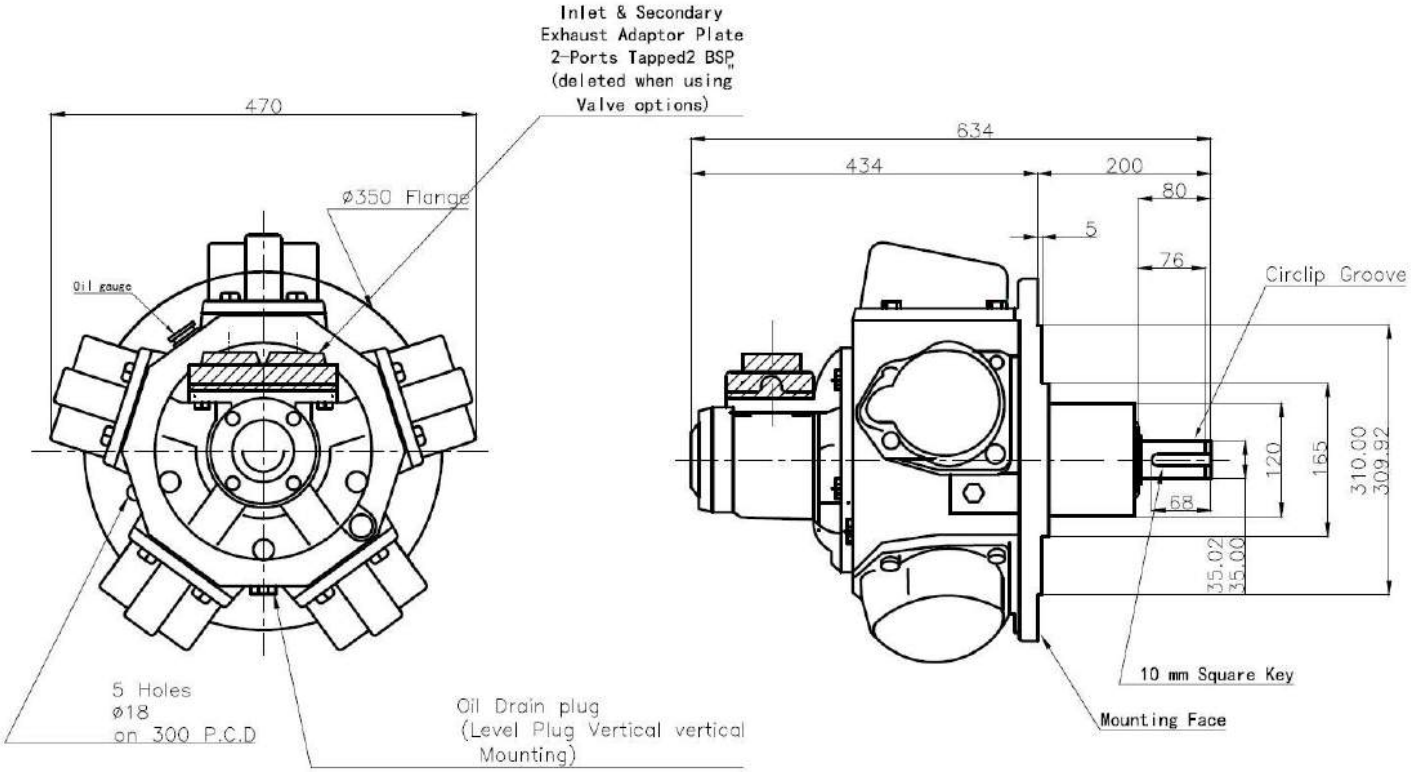
GENERAL DATA

Mass (motor only): 62 kgs (137 lbs)
Max. Overhung Force on Motor Shaft: 1330 N (300 lbf)

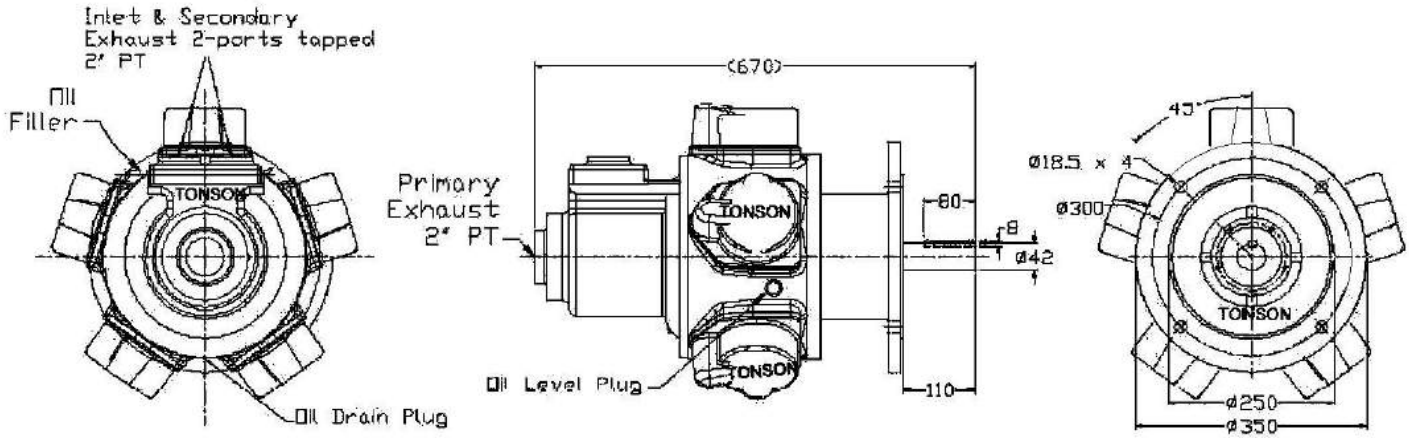
LUBRICATING OIL CAPACITIES

Horizontal: 500 ml Vertical: 940 ml
Good quality hydraulic oil with a viscosity of around 100 cSt (460 SSU)

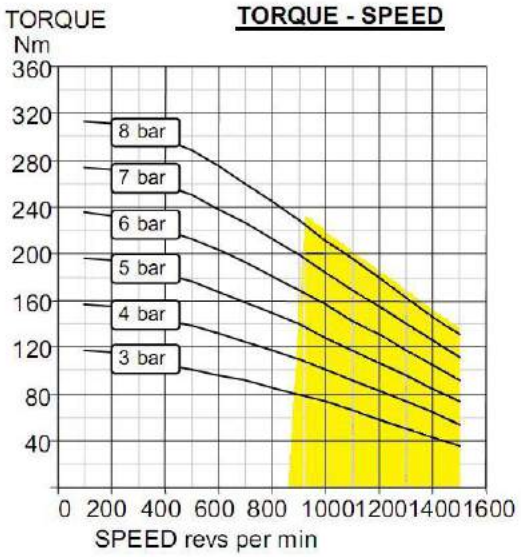
M17-F (RM510)

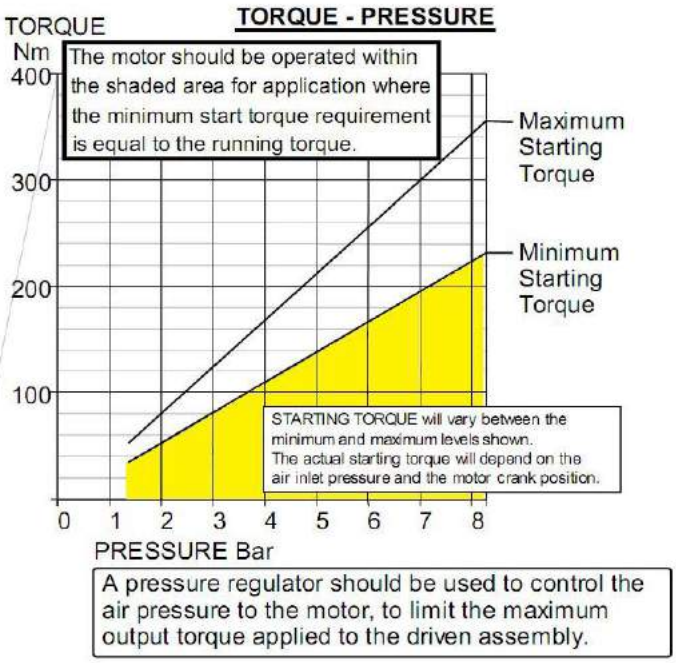


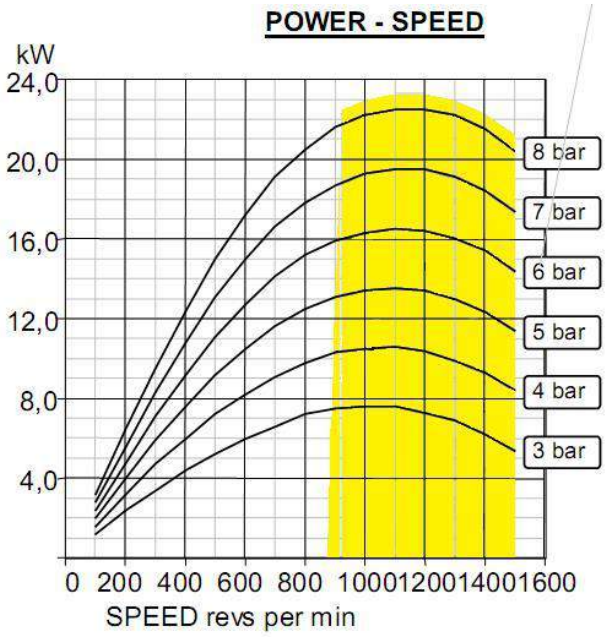
M17-I (RM510 IEC D160 B5)

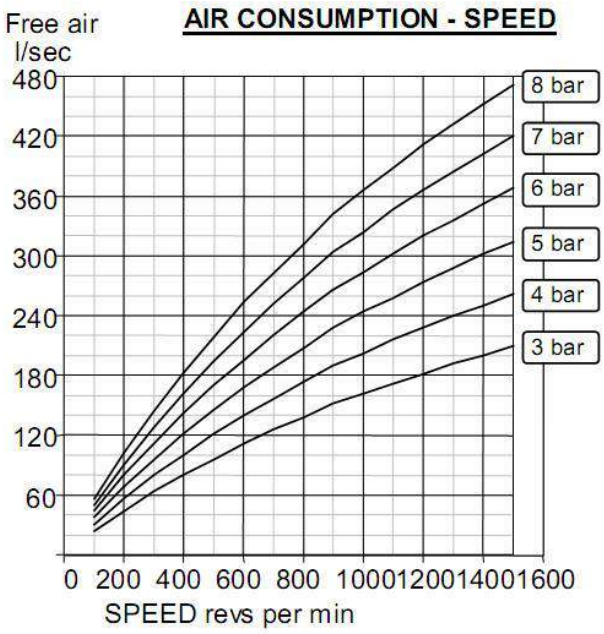


Performance Graphs - M17 Series









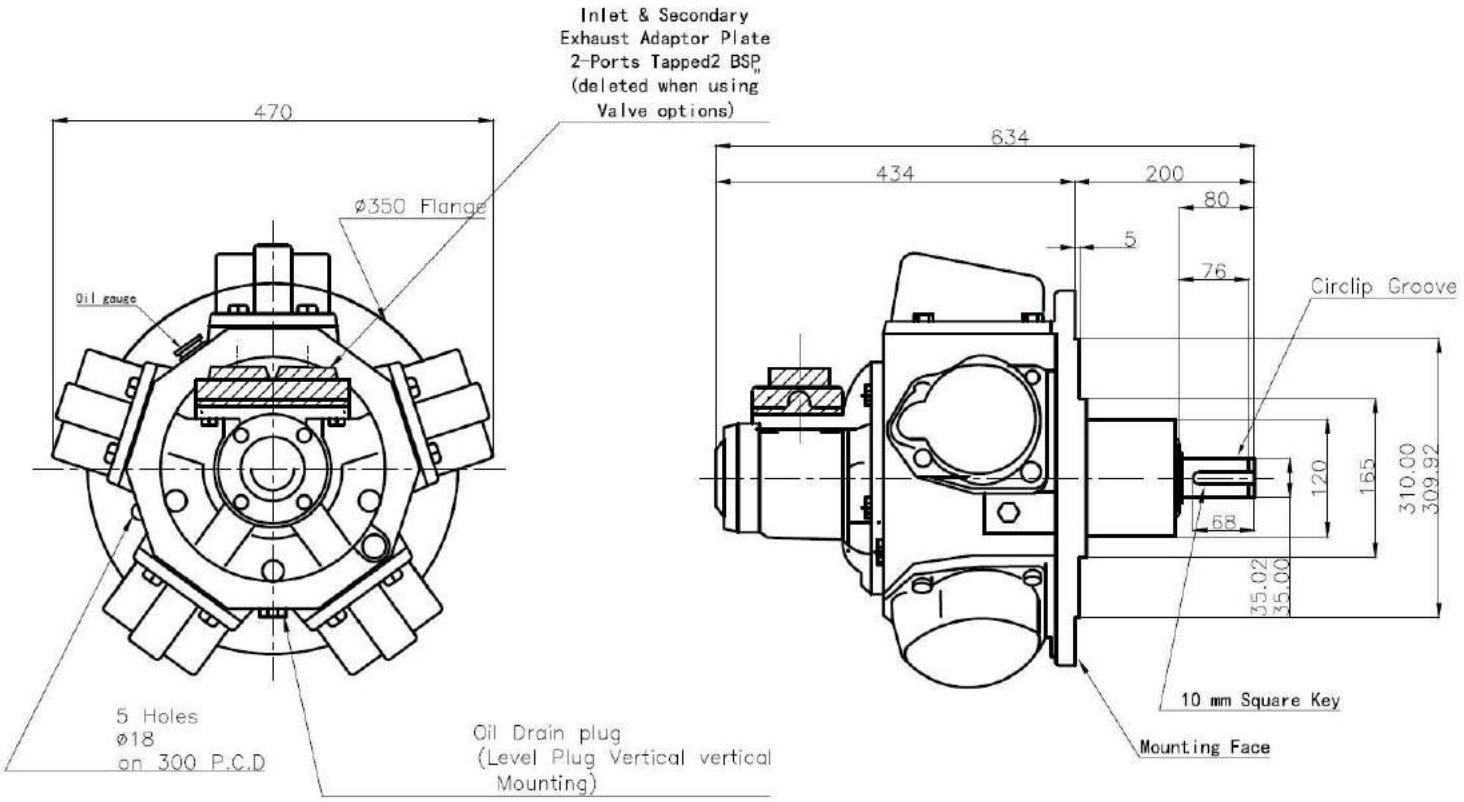
Motor should be operating at speed as close as possible to the speed at which PEAK POWER is achieved to give optimum performance and air consumption.

LUBRICATING OIL CAPACITIES
Horizontal 1.1 litres Vertical 2.1 litres
Use a goood quality hydraulic oil with a viscosity of around 100cSt (460SSU) at 40°C (104°F)

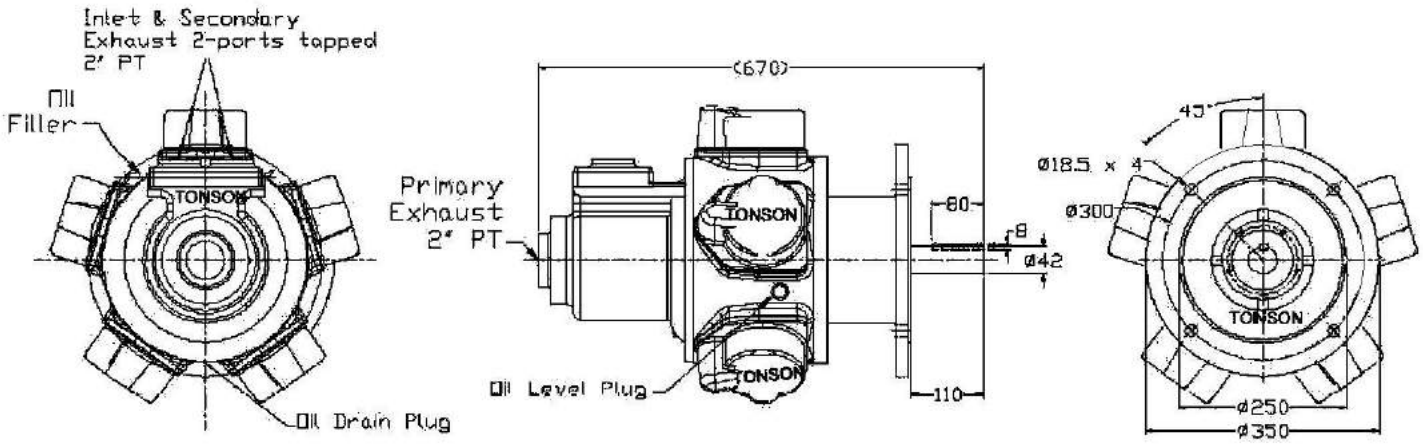
AIRLINE FILTRATION AND LUBRICATION
Use 64 micron filtration or better. Choose a lubricator suitable for the flow required. Prior to initial start-up, inject oil into the inlet port.
Lubricator drop rate 6-8 drops/minute continuous operation
Lubricator drop rate 12-16 drops/minute intermittent operation

GENERAL DATA
MASS (motor only) 115 kgs (254 lbs)
MOMEMT OF INERTIA of rotating parts 14 gm² (motor only)
MAX OVERHUNG FORCE on motor shaft 6500 N (1460 lbf)
TEMPERATURE RANGE -20°C to +80°C (-4°F to +176°F)

M18-F (RM610)



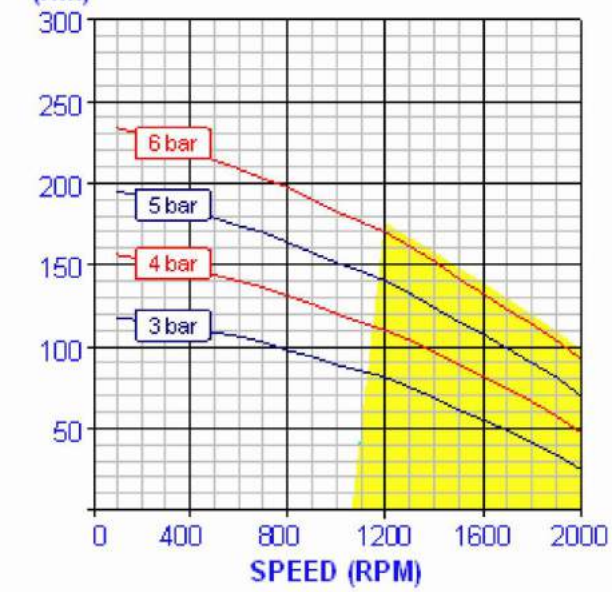
M18-I (RM610-IEC D160 B5)



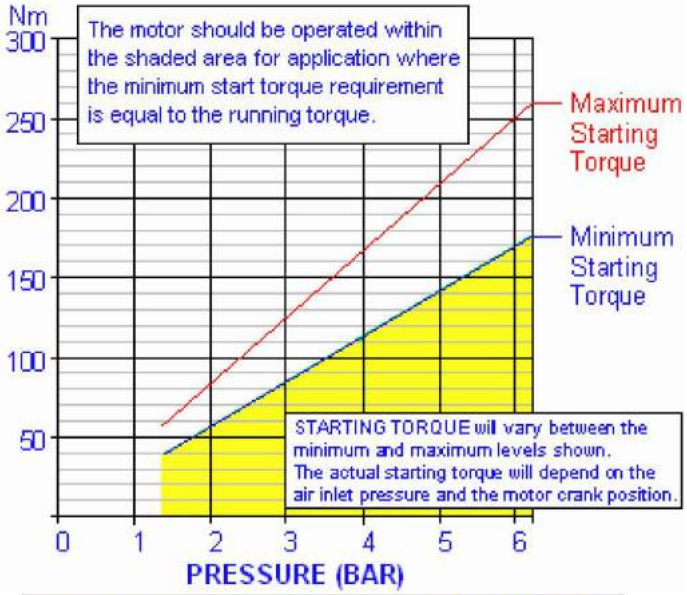
Performance Graphs - M18 Series

M18 Series
Piston Air Motors

TORQUE v.s. SPEED

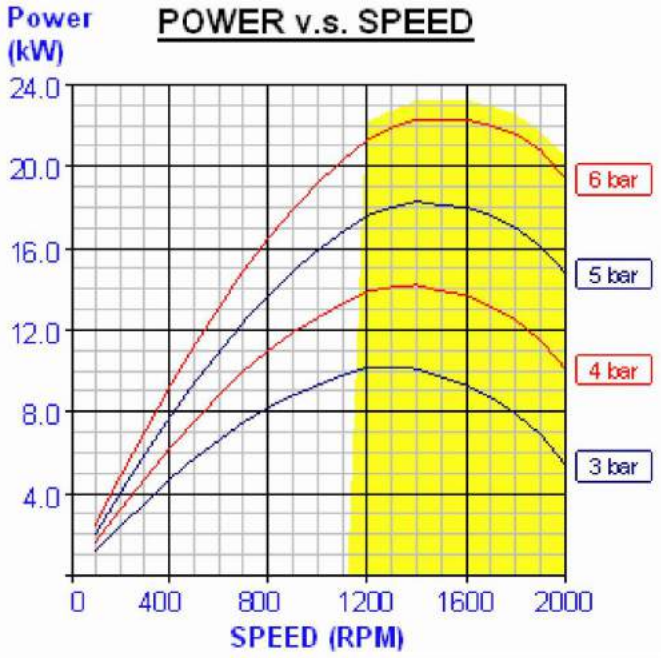


TORQUE v.s. PRESSURE



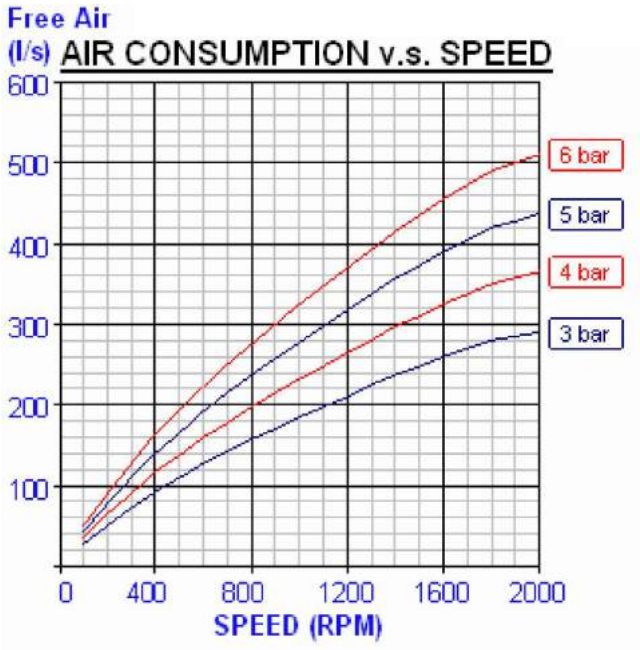
A pressure regulator should be used to control the air pressure to the motor, to limit the maximum output torque applied to the driven assembly.

POWER v.s. SPEED



Motor should be operating at speed as close as possible to the speed at which PEAK POWER is achieved to give optimum performance and air consumption.

AIR CONSUMPTION v.s. SPEED



AIRLINE FILTRATION & LUBRICATION

Use 64 micron filtration or better.
Inject oil into the inlet port prior to initial start-up.
Lubricator drop rate at 3 to 4 drops/min for continuous operation
Lubricator drop rate at 6 to 10 drops/min for intermittent operation

GENERAL DATA

Mass (motor only): 125 kgs (275 lbs)
Max. Overhung Force on Motor Shaft: 6500 N (1460 lbf)

LUBRICATING OIL CAPACITIES

Horizontal: 1.1 l Vertical: 2.1 l
Use good quality hydraulic oil with a viscosity of around 100 cSt (460 SSU) at 40'C

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Email: sales@samt.com.au