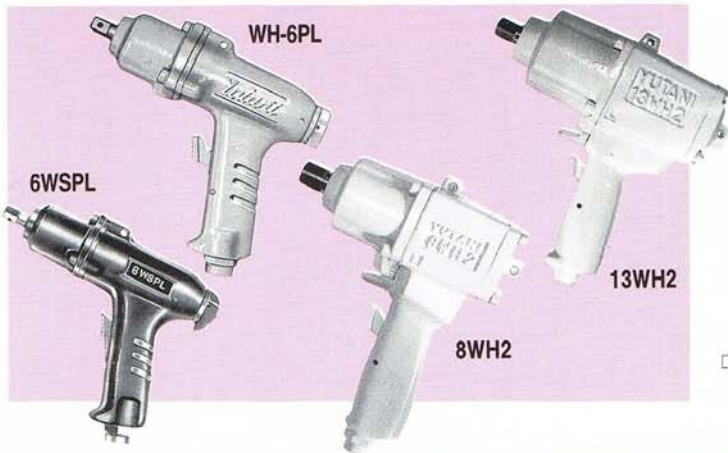


# IMPACT WRENCHES

Yutani's impact wrenches are air tools ideally suited for tightening and loosening nuts and bolts, and are highly rated in a wide range of industries. Please make your selection based on each tool's particular application.

## Pistol-grip standard models



These compact lightweight models are best sellers and have been well-received in many industries, particularly on automobile production lines.

- Option: A two-step rotation type (6 mm type) with low speed and high speed is available.

Air pressure 0.49MPa

Model	Capacity	Free speed	Weight	Overall length	Square drive size	Air inlet
	mm	rpm	kg	mm	mm	P.T
6WSPL	6	8,500	0.85	172	9.5	1/4
WH-6PL	6	8,500	0.9	170	9.5	1/4
6WSHPL	6~8	8,000	0.95	165	9.5	1/4
8WH2	8~10	6,400	1.4	160	9.5*, 12.7	1/4
10WH2	10	6,300	1.7	164	12.7	1/4
13WK	14	5,000	3.6	208	12.7	1/4
13WH2	14	4,800	2.7	202	12.7	1/4

\* Option

- Please inquire as to the date of delivery, since this varies depending on production schedules.

## Pistol-grip rear-exhaust models (low-noise and low-vibration types)



The grips of these compact lightweight models comfortably fit the hand for easy operation. Exhaust noise is reduced by about 10 phons and the direction of exhaust is variable over 360 degrees. The low-vibration type conforms to environmental hygiene regulations and has been specially developed by Yutani.

Air pressure 0.49MPa

Model	Capacity	Free speed	Weight	Overall length	Square drive size	Air inlet
	mm	rpm	kg	mm	mm	P.T
5WPE	5~6	9,000	0.85	142	9.5	1/4
6WSPE	6	8,500	0.85	172	9.5	1/4
WH-6PLE	6	8,500	0.9	170	9.5	1/4
6WSHPE	6~8	8,000	0.95	165	9.5	1/4
600SHE	6~8	8,000	1.1	170	9.5	1/4
8WPE	8	7,500	1.4	160	9.5	1/4
10WHE	10	6,000	1.7	164	12.7	1/4
13WHE	14	4,800	2.7	202	12.7	1/4
L-13WPA	14	4,800	3.3	202	12.7	1/4

■ Two-step rotation type (standard)

- Low-vibration type (incorporating Yutani's exclusive vibration-isolation mechanism that conforms to Japan's environmental hygiene regulations.)

## Pistol-grip heavy-duty models

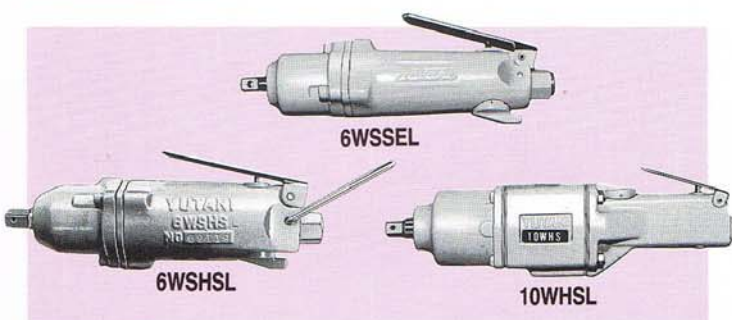


These are the most powerful of the pistol-grip models. They are used in the shipbuilding, bridge-building, construction and civil engineering industries. A built-in adjustment valve makes capacity adjustments easy.

Air pressure 0.49MPa

Model	Capacity	Free speed	Weight	Overall length	Square drive size	Air inlet
	mm	rpm	kg	mm	mm	P.T
16WPA	16	5,000	4.3	222	15.9	3/8
16WPB	16	5,000	4.3	230	19.0	3/8
19WP	19~22	4,200	6.5	240	19.0	3/8
32WP	33	3,200	11.5	310	25.4	1/2

## Straight-type standard models



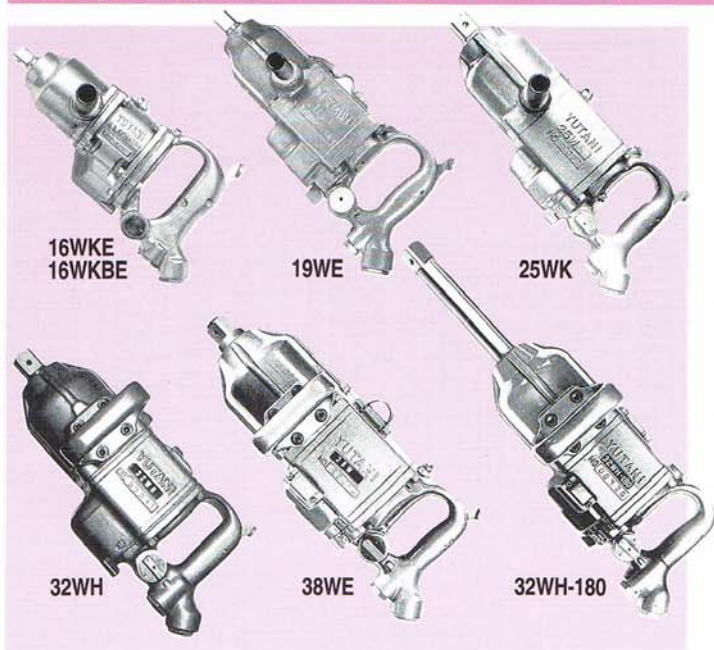
These straight-type models are effective for tightening and loosening nuts and bolts where it is difficult to use conventional pistol-grip models because of the working method or the location. They are lightweight and easy to operate.

Air pressure 0.49MPa

Model	Capacity	Free speed	Weight	Overall length	Square drive size	Air inlet
	mm	rpm	kg	mm	mm	P.T
6WSSEL	6	8,500	0.8	198	9.5	1/4
WH-6SEL	6	8,500	0.8	198	9.5	1/4
6WSHSL	6~8	8,000	0.9	190	9.5	1/4
8WSAL	8	5,800	1.3	202	9.5, 12.7*	1/4
10WHSL	10	6,300	2.1	262	12.7	1/4
13WHSL	14	4,800	2.9	315	12.7	1/4

\* Option

## Grip-type standard models and long-chuck driver models



These are medium-sized impact wrenches indispensable to heavy-duty applications in the automobile, construction machinery and shipbuilding industries. A built-in adjustment valve makes capacity adjustments easy. The long-chuck drivers are suited for installing and removing tires on large vehicles, and tightening and loosening nuts and bolts in isolated areas.

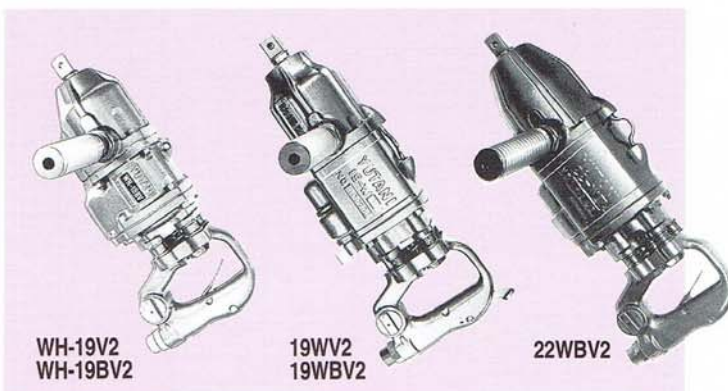
Air pressure 0.49MPa

Model	Capacity	Free speed	Weight	Overall length	Square drive size	Air inlet
	mm	rpm	kg	mm	mm	P.T
<input type="checkbox"/> 16WK	19	5,500	4.7	288	15.9	3/8
<input type="checkbox"/> 16WKB	19	5,500	4.7	292	19.0	3/8
16WKE	19	5,500	4.7	284	15.9	3/8
16WKBE	19	5,500	4.7	288	19.0	3/8
19WE	20	4,400	6.0	345	15.9	3/8
WH-19	20	4,200	5.4	300	15.9	3/8
WH-19B	20	4,200	5.4	300	19.0	3/8
22WB	24	3,800	7.6	360	19.0	3/8
25WK	27	3,400	10.0	370	25.4	3/8
32WH	33	3,600	11.3	378	25.4	1/2
38WE	39	2,900	15.0	440	25.4	1/2
42W	42	3,200	14.7	403	25.4	1/2
32WH-180	33	3,600	12.8	577	25.4	1/2
38WE-180	39	2,900	16.5	630	25.4	1/2
42W-180	42	3,200	16.2	608	25.4	1/2

Standard: Outside lever type    Option: Inside lever type

Only the outside lever type

## Grip-type vibration-proof models



These models offer superior vibration isolation and conform to environmental hygiene regulations. They are particularly useful for pole and pile works. Vibrations have been reduced by about 20% to minimize worker fatigue.

Air pressure 0.49MPa

Model	Capacity	Free speed	Weight	Overall length	Square drive size	Air inlet
	mm	rpm	kg	mm	mm	P.T
16WKV2	16 ~ 19	5,500	5.2	339	15.9	3/8
16WKBV2	16 ~ 19	5,500	5.2	343	19.0	3/8
WH-19V2	19	4,200	5.8	358	15.9	3/8
WH-19BV2	19	4,200	5.8	358	19.0	3/8
19WV2	19 ~ 22	4,400	7.2	390	15.9	3/8
19WBV2	19 ~ 22	4,400	7.2	396	19.0	3/8
22WBV2	22	3,800	7.4	405	19.0	3/8
22WKV2	19 ~ 25	3,400	9.8	421	25.4	3/8

Standard: Inside lever type    Option: Outside lever type

## Corner-type models and corner-type heavy-duty models



These models are ideally suited for tightening and loosening nuts and bolts in narrow and recessed areas. They have been well received by the automobile and general industries. The corner-type heavy-duty models are powerful and practical for the shipbuilding, construction machinery and large plant construction industries. A built-in adjustment valve makes capacity adjustments easy.

Air pressure 0.49MPa

Model	Capacity	Free speed	Weight	Overall length	Height of corner section	Square drive size	Air inlet
	mm	rpm	kg	mm	mm	mm	P.T
6WHCL	6	8,000	1.3	229	58	9.5	1/4
6CWHL	6 ~ 8	7,500	1.4	216	57	9.5	1/4
8WHCL	8 ~ 10	5,800	2.0	279	69	9.5	1/4
10WHCL	10	6,000	3.0	304	86.5	12.7	1/4
13WHCL	14	4,600	4.5	359	86.5	12.7	3/8
16WKC	16	5,200	7.0	351	107	15.9	3/8
<input type="checkbox"/> WH-19C	20	4,000	9.0	358	113	15.9	3/8
<input type="checkbox"/> WH-19BC	20	4,000	9.0	358	118	19.0	3/8
<input type="checkbox"/> 22CWB	24	3,200	9.8	398	127	19.0	3/8
<input type="checkbox"/> 25CWK	27	3,000	13.0	425	145	25.4	3/8
<input type="checkbox"/> 32CWB	33	2,800	17.0	481	144	25.4	1/2
<input type="checkbox"/> 38CWB	39	2,500	20.3	517	155	25.4	1/2

Please inquire as to the date of delivery, since this varies depending on production schedules.

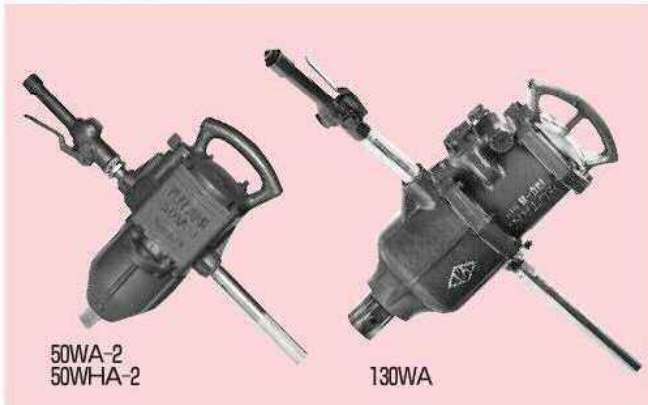
Standard: Inside lever type    Option: Outside lever type

# サイドハンドル型 インパクトレンチ

ユタニのサイドハンドル型インパクトレンチは、強力なパワーを誇る大型インパクトレンチです。大径のボルト・ナットの締付、取外しに威力を発揮します。



## サイドハンドル型



インパクトレンチ中、最大のパワーを誇る強力タイプです。造船、大型プラント、重機大型エンジン等のボルト、ナットの締付け、取外しに最適です。アジャストバルブ内蔵（最大1～最小4）により能力調整が容易です。

空気圧力0.59MPa

分類	型式	能力	無負荷 回転数	質量	全長	差込み角	ホース口全 取付ねじ Rc (PT)
		mm	min <sup>-1</sup> (rpm)				
サイド ハンドル 型	45WA	48	2,800	21	445	28.6	3/4
	50WA-2	56	2,500	30	500	34.9	3/4
	50WHA-2	56	2,500	31	500	38.1	3/4
	65WA	72	2,500	46	565	38.1	3/4
	70WA	76	2,500	48	572	44.5	1
	75WB	80	2,400	55	603	44.5	1
	100WH	110	2,200	80	665	63.5	1
	130WA	130	1,900	100	710	63.5	1

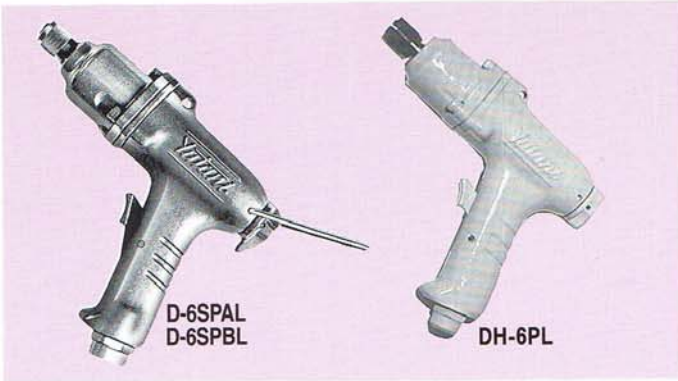
生産の都合上、納期はご照会下さい。  
ソケットも別作にて、製作いたします。

# IMPACT SCREWDRIVERS

Yutani's impact screwdrivers are air tools which have been well-received and are widely used for fastening screws and tapping screws on automobile production lines and in many other industries. Please make your selection on the application.



## Pistol-grip standard models



These compact, lightweight models are best sellers and have been well-received in industries which require efficient screw tightening and loosening.

- Option: A two-step rotation type (6 mm type) with low speed and high speed is available.
- Letters A and B in the model number represent the type of bit.  
A: Applicable to single-end bits  
B or no indication: Applicable to double-end and single-end bits

Air pressure 0.49MPa

Model	Capacity	Free speed	Weight	Overall length	Square drive size	Air inlet
	mm	rpm				
D-6SPAL	6	8,500	0.85	177	6.35	1/4
D-6SPBL	6	8,500	0.85	177	6.35	1/4
DH-6PL	6	8,500	0.9	177	6.35	1/4

## Pistol-grip rear-exhaust models



The rear exhaust direction is variable over 360 degrees, offering reduced noise and a cleaner working environment regardless of the direction of operation.

- Letters A and B in the model number represent the type of bit.  
A: Applicable to single-end bits  
B or no indication: Applicable to double-end and single-end bits

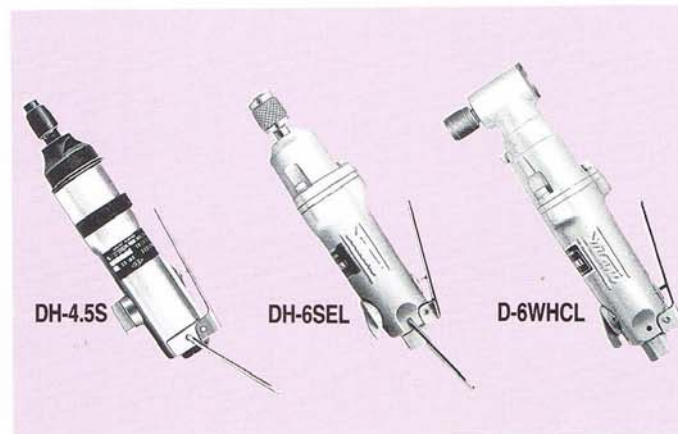
Models DH-4.5PE, D-5WPE, and D-600SHE feature a new screw-on case to prevent the workpiece from damage.

Air pressure 0.49MPa

Model	Capacity	Free speed	Weight	Overall length	Square drive size	Air inlet
	mm	rpm				
■ DH-4.5PEA	3.5 ~ 5	11,000	0.8	160	6.35	1/4
■ DH-4.5PEB	3.5 ~ 5	11,000	0.8	160	6.35	1/4
■ D-5WPEA	5 ~ 6	9,000	0.85	145	6.35	1/4
■ D-5WPEB	5 ~ 6	9,000	0.85	145	6.35	1/4
□ D-6SPALE	6	8,000	0.8	177	6.35	1/4
□ D-6SPBLE	6	8,000	0.8	177	6.35	1/4
□ DH-6PLE	6	8,000	0.8	177	6.35	1/4
□ D-6WSHPE	6 ~ 8	8,000	0.9	172	6.35	1/4
■ D-600SHEA	6 ~ 8	8,000	1.0	177	6.35	1/4
■ D-600SHEB	6 ~ 8	8,000	1.0	177	6.35	1/4
■ D-8WPE	6	7,500	1.4	160	6.35	1/4

- Two-step rotation type (standard)
- Two-step rotation type (option)

## Straight-type standard models and corner-type models



These compact, lightweight straight-type models are very easy to use in any working posture. The corner-type models are suited for jobs in narrow and confined areas where it is difficult to use the pistol-grip models and straight-type models.

Air pressure 0.49MPa

Model	Capacity	Free speed	Weight	Overall length	Square drive size	Air inlet
	mm	rpm				
DH-4.5S	3.5 ~ 5	11,000	0.6	190	6.35	1/8
D-6SSAEL	6	8,500	0.8	204	6.35	1/4
D-6SSBEL	6	8,500	0.8	204	6.35	1/4
DH-6SEL	6	8,500	0.8	205	6.35	1/4
D-6SHSL	6 ~ 8	8,000	0.9	200	6.35	1/4
□ D-6WHCL	6	7,500	1.4	229	6.35	1/4

- Please inquire as to the date of delivery, since this varies depending on production schedules.

# エアグラインダ/エアサンダ

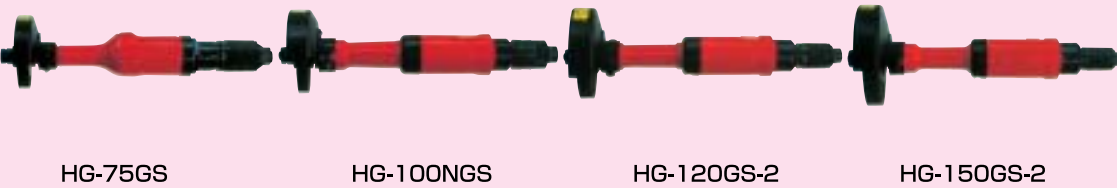
## Air Grinders/Air Sanders

安全設計で高能力、高速研削、長寿命を達成!  
High Power, Fast Grinding and Long Life with Safety Design!

**ペンシルグラインダ** 小型軽量で金型の仕上、バリ取り、面取り等の作業に威力を発揮します。  
**Pencil Grinders** These compact lightweight models are ideal for finishing, deburring and filleting metal molds.



**ストレートグラインダ**  
**Straight Grinders**  
バリ取り、錆落とし、溶接仕上の軽作業から重作業、研削に好評です。  
High-speed rotation ensures more efficient continuous operation when removing burrs and rust and when finishing welded products.



**スロットル機構**  
Throttle Type



**アングルグラインダ** 錆落とし、溶接仕上、バリ取りなどの研削に好評です。  
**Angle Grinders** These compact lightweight models ensure safe and efficient grinding operations.



**アングルサンダ** ディスクペーパー・ワイヤブラシによる錆落とし、塗料落とし、溶接仕上などの研磨作業に最適です。  
**Angle Sanders** These compact lightweight models are ideal for safe and efficient sanding and polishing.



# AG エアグラインダ/エアサンダ Air Grinders/Air Sanders

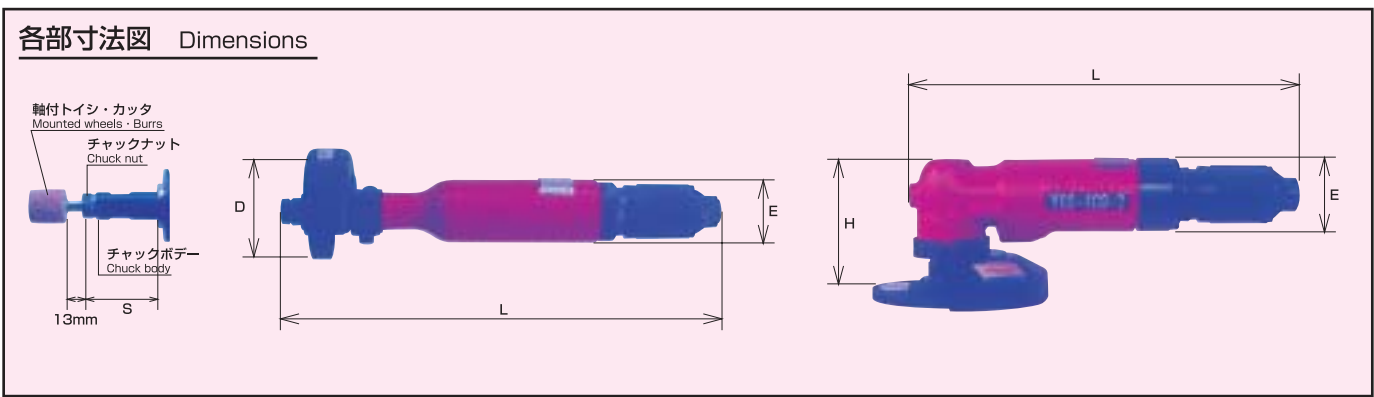
## 仕様 Specifications

空気圧力 Air pressure 0.59MPa

種別 Class	形状 Shape	型式 Model		チャックナット寸法	無負荷回転数 (最高)	質量	全長	チャック寸法	外径	空気消費量	ホース口金 取付ねじ	ホース内径	
				Chuck nut size	Free speed (maximum)		L	S					Outer diameter
				mm	min <sup>-1</sup> (rpm)	kg	mm	mm	mm	Nm <sup>3</sup> /min		mm	
Grinders	ペンシル Pencil	HG-13NB	グリップハンドル式	Grip handle type	3,	30,000	0.44	150	26	33.5	0.3	1/4	6.3
		HG-20NB	グリップハンドル式	Grip handle type	6,	21,000	0.48	165	44	36	0.4	1/4	6.3
		HG-38NK	レバー式	Lever type	3,6,6,35	22,000	0.47	159	40	35	0.45	1/4	9.5
		HG-38NB-2	グリップハンドル式	Grip handle type	3,6,6,35	22,000	0.60	150	35	35	0.45	1/4	9.5
		HG-38NB-21	グリップハンドル式 前方排気	Grip handle type Front exhaust	3,6,6,35	22,000	0.60	150	35	35	0.45	1/4	9.5
	HG-65NY	レバー式	Lever type	3,6,6,35	18,000	0.68	171	41	41	0.5	1/4	9.5	
	HG-65NC	グリップハンドル式	Grip handle type	3,6,6,35	18,000	0.83	174	41	44	0.5	1/4	9.5	
	HG-65GSC	コレット式	Collet type	3,6,6,35	14,600	1.20	330	66	42	0.5	1/4	9.5	
	HG-65GLBSC	コレット式	Collet type	3,6,6,35	14,600	1.84	501	66	42	0.5	1/4	9.5	
	HG-75GSC	コレット式	Collet type	3,6,6,35	12,000	1.37	354	66	52	0.5	1/4	9.5	

種別 Class	形状 Shape	型式 Model	ホイール/ペーパー寸法 (外径×厚さ×穴径)	ホイール軸ネジ寸法	ヘッド角度	無負荷回転数 (最高)	質量 (ホイールなし)	全長	外径			空気消費量	ホース口金 取付ねじ	ホース内径	
			Wheel/Paper size(O.d.× thickness×hole dia.)	Wheel spindle screw size	Head angle	Free speed (maximum)	Mass (without wheel)	L	D	E	H				Air consumption
			mm		Degree	min <sup>-1</sup> (rpm)	kg	mm	mm	mm	mm	Nm <sup>3</sup> /min		mm	
Grinders	Straight	HG-65GS	65×13×9.5	W3/8-16	—	14,600	1.3	292	65	42	—	0.45	1/4	9.5	
		HG-65GLBS	65×13×9.5	W3/8-16	—	14,600	1.95	462	65	42	—	0.45	1/4	9.5	
		HG-75GS	75×13×9.5	W3/8-16	—	12,000	1.49	312	75	52	—	0.50	1/4	9.5	
		HG-100NGS	100×16×12.7	W1/2-12	—	9,500	2.27	367	100	55	—	0.55	3/8	12.7	
		HG-120GS-2	125×19×12.7	W1/2-12	—	7,600	3.06	418	125	62	—	0.60	3/8	12.7	
		HG-150GS-2	150×25×15.9	W5/8-11	—	6,300	4.05	448	150	68	—	0.65	3/8	12.7	
	Angle	YGS-2G	50×4×9.5	—	—	90	14,000	0.66	158	—	35	48	0.40	1/4	9.5
		YGS-3GS-1	75×4×15	—	—	90	13,500	1.05	187	—	37	67	0.45	1/4	9.5
		YGS-3GS-2	100×6×15	—	—	90	13,500	1.08	187	—	37	67	0.45	1/4	9.5
		YGS-4GS-2	100×6×15	—	—	90	13,600	1.69	242	—	47	74	0.70	1/4	9.5
YGS-4GBS-2		100×6×15	—	—	90	13,600	1.89	242	—	47	74	0.70	1/4	9.5	
YGS-4GBSE-2		100×6×15	—	—	90	13,600	1.92	242	—	47	74	0.70	1/4	9.5	
YGS-4GBCS		100×6×15	—	—	105	13,600	1.95	235	—	47	82	0.70	1/4	9.5	
YGS-5GCS		125×6×22	—	—	105	10,900	2.26	244	—	48	86	0.75	1/4	9.5	
YGS-6GS		180×6×22	—	—	90	7,600	2.30	286.5	—	50	82	1.20	3/8	12.7	
YGS-7GS-3		180×6×22	—	—	90	7,600	3.53	286	—	63	94	1.20	3/8	12.7	
Sanders	YGS-7ES	180×6×22	—	—	90	7,600	3.52	287	—	71	89	1.20	3/8	12.7	
	YGS-2GP	50×_×10	—	—	90	14,600	0.62	159	—	35	48	0.40	1/4	9.5	
	SS-100S	100×_×16	—	—	90	12,500	0.93	187	—	37	67	0.45	1/4	9.5	
	YGS-4PS-2	125×_×16	—	—	90	10,000	1.58	233	—	47	74	0.70	1/4	9.5	
	YGS-4PCS	125×_×16	—	—	105	10,000	1.84	235	—	47	82	0.70	1/4	9.5	
	YGS-5GPS	150×_×22	—	—	105	8,000	1.99	244	—	48	86	0.75	1/4	9.5	
YGS-6P	126×_×22	—	—	120	7,000	1.80	224	—	35	84	0.75	1/4	9.5		

標準グリップハンドル Standard Grip Handle



## 株式会社 ユタニ

本社・工場 〒630-8453 奈良市西九条町5丁目4番地の8  
 TEL(0742)61-1815(代) FAX(0742)61-9257  
 関東営業所 〒323-0822 栃木県小山市駅南3丁目14番2号  
 TEL(0285)27-1231 FAX(0285)27-1302  
 湘南出張所 〒252-0807 神奈川県藤沢市下土棚248番地6  
 TEL・FAX(0466)46-0825  
 名古屋営業所 〒467-0862 名古屋市長区瑞穂区堀田通7丁目6番地  
 TEL(052)871-7602 FAX(052)881-7831  
 九州出張所 〒802-0071 北九州市小倉北区黄金1丁目11番10号(東和ビル)  
 TEL(093)931-3927 FAX(093)931-3962  
 株式会社ユタニ広島 〒734-0014 広島市南区宇品西1丁目2番26号  
 TEL(082)254-5432 FAX(082)254-5433  
 株式会社ユタニ北海道 〒065-0042 札幌市東区本町2条3丁目6番11号  
 TEL(011)781-4541 FAX(011)781-9898

## YUTANI CORPORATION

Head Office: 4-8, Saikyo-cho 5-chome, Nara 630-8453, Japan  
 Phone(0742)61-1815 FAX(0742)61-9257  
 Branch Offices: Kantou, Nagoya, Kita-Kyusyu  
 URL <http://www.airtool-yutani.co.jp>  
 E-mail [s-yutani@airtool-yutani.co.jp](mailto:s-yutani@airtool-yutani.co.jp)

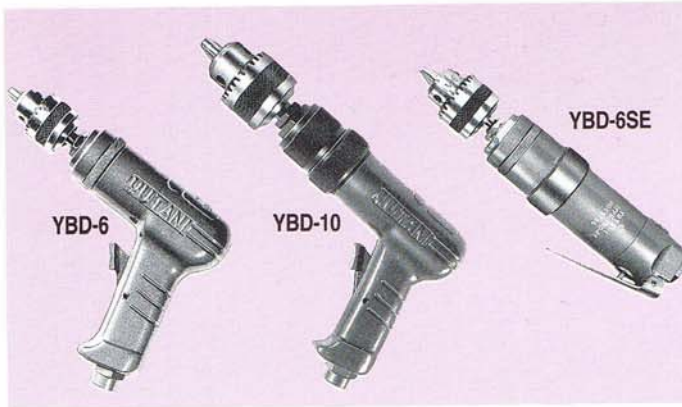
仕様および設計は変更することがありますので予め御諒承願います。  
 Specifications and designs in this catalogue may be subject to change.

# AIR DRILLS

Yutani's rotary air drills are compact, lightweight and perform well even when overloaded. They are suited for a wide range of drilling jobs.



## Small pistol-grip models and small straight-type models



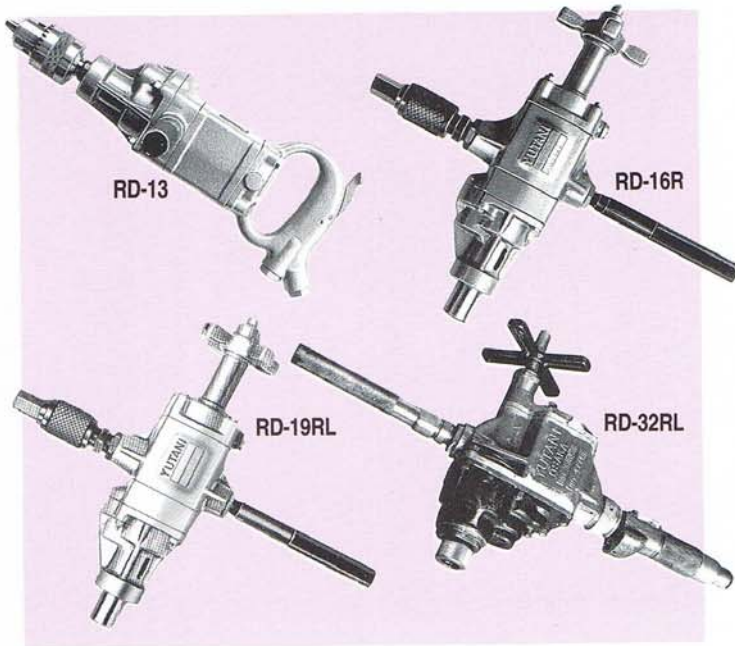
These models are compact, powerful and variable in speed. They are suitable for drilling and spot-facing and enjoy a good reputation in many fields, particularly in the automobile industry.

Air pressure 0.59MPa

Model	Drill capacity	Free speed	Weight	Overall length	Air inlet	
	mm	rpm			kg	mm
YBD-6	6.3	3,600	1.1	167	1/4	
YBD-8B	8	1,500	1.4	202	1/4	
YBD-10	10	1,000	1.6	217	1/4	
YBD-6SE	6.3	3,600	1.2	204	1/4	
YBD-8SE	8	1,500	1.6	241	1/4	

Please inquire as to the date of delivery, since this varies depending on production schedules.

## Rotary straight-type models



These powerful drills ensure highly efficient drilling, reaming and tapping for various heavy-duty applications. They can also be used as air motors and have been well-received by the shipbuilding and steel industries.

All models except for the RD-13 are of the reversible type.

Air pressure 0.59MPa

Model	Drill capacity	Free speed	Weight	Overall length	Chuck type	Air Inlet	
	mm	rpm				kg	mm
RD-13	13	1,200	3.4	350	J.T No.2 1/2	1/4	
RD-14R	14	1,000	5.5	368	MT No.1	3/8	
RD-16R	16	900	5.5	378	MT No.2	3/8	
RD-19RL	19	700	5.5	378	MT No.2	3/8	
RD-23RL	23	570	5.5	378	MT No.2	3/8	
RD-28R	28	500	13	366	MT No.3	1/2	
RD-32RL	32	450	13	366	MT No.3	1/2	

Please inquire as to the date of delivery, since this varies depending on production schedules.

## Rotary corner-type models



These models are suited for drilling, reaming and tapping in narrow and confined areas.

All models are of the reversible type.

Air pressure 0.59MPa

Model	Drill capacity	Free speed	Weight	Overall length	Head size	Air inlet	
	mm	rpm				kg	mm
14RCR	14	800	6.5	435	157	3/8	
22RCRB	22	650	11.8	507	200	1/2	
32RCRB	32	400	13	529	205	1/2	

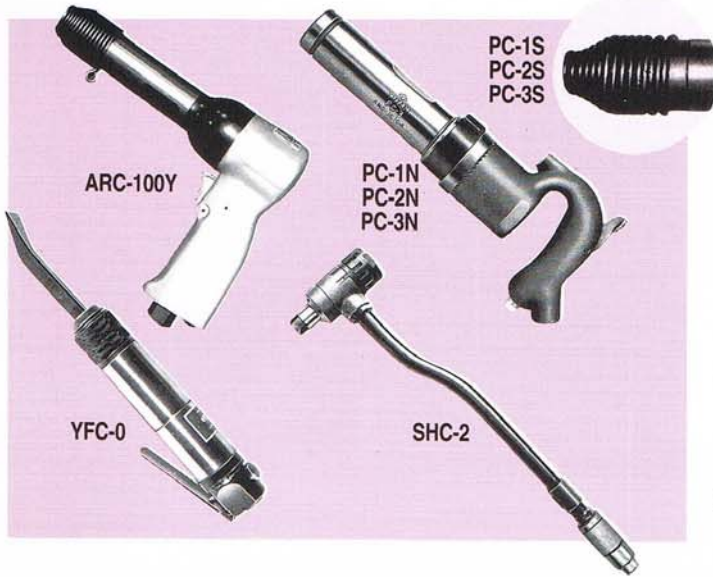
Please inquire as to the date of delivery, since this varies depending on production schedules.

# AIR HAMMERS

Yutani's hammers are compact and simple. Due to the use of a high-speed hammering mechanism, they feature reduced recoil. They are highly durable and efficient chipping is guaranteed.



## Small chipping hammers, chipping hammers, flux chippers and scaling hammers



These hammers are useful for a wide variety of jobs, such as pressure fitting, small rivet crimping, rust removal and chipping. They are available in a range of models.

Air pressure 0.59MPa

Model	Capacity		Blowing speed bpm	Piston diameter × Stroke mm	Chisel bushing shape (needle diameter × q'ty)	Weight kg	Overall length mm	Air inlet P.T
	Duralumin	Steel						
ARC-75N	Slag removal		3,100	φ20 × 75	φ3 × 16	2.1	378	1/4
ARC-100Y	6.4	4.8	2,300	φ12.7 × 100	φ10.1	1.5	218	1/4
PC-1N	Very slight chipping Thin-sheet gap filling		3,000	φ28.5 × 25	Round, hexagonal	5.0	300	1/4
PC-1S	Very slight chipping Thin-sheet gap filling		3,000	φ28.5 × 25	Round, hexagonal	5.0	309	1/4
PC-2N	Slight chipping Thin-sheet gap filling		3,000	φ28.5 × 51	Round, hexagonal	5.5	349	1/4
PC-2S	Slight chipping Thin-sheet gap filling		2,600	φ28.5 × 51	Round, hexagonal	5.5	349	1/4
PC-3N	General chipping Thin-sheet gap filling		2,300	φ28.5 × 76	Round, hexagonal	6.3	394	1/4
PC-3S	General chipping Thin-sheet gap filling		2,300	φ28.5 × 76	Round, hexagonal	6.3	394	1/4
YFC-O	Steel-sheet rivet cutting and chipping		2,300	φ25 × 22	□12.7	1.7	212	1/4
YFC-ON	Rust removal		4,000	φ25 × 22	φ3 × 19	2.7	416	1/4
SCH-2	Rust removal		4,000	φ30 × 30	—	2.5	540	3/8

□ Needle type

\* The PS-1S, PS-2S, and PS-3S come with a retainer spring. When ordering chipping hammers, please specify the chisel bushing shape (round or hexagonal).



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**YUTANI AIR MOTOR**  
**AIR WINCH**

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**YUTANI CORPORATION**

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## 油谷エアーモータの特徴

- **苛酷な作業条件下でもOK!**  
高温多湿でも安心。過負荷で使用しても故障がありません。
- **防爆機構で安全作業!**  
スパークが飛ばない防爆機構で安心して作業ができます。
- **耐久性抜群! メンテナンスフリー!**  
長年の技術と考え抜かれた設計に裏付けされた抜群の耐久性。プロの期待に応えます。
- **やさしい操作!**  
起動、停止は敏速。回転数を自由にコントロールできます。
- **強いパワー! しかも軽量、コンパクト!**  
多翼式ロータリエンジン採用で高能率化。斬新な減速機構で軽量コンパクト化。

## 油谷エアーモータの用途

- **造船業**  
ハッチカバーの開閉  
舷艇の上げ下し  
ラダーの上げ下し  
バルブの開閉
- **自動車工業**  
エンジンのならし運転 (セルモータの代用)  
作業台車の駆動  
ベルトコンベヤ駆動
- **一般産業**  
ベルトコンベヤ駆動  
ターンテーブル駆動  
炉の扉の開閉  
塗料・インク等のかくはん  
工作機械の電動モータの代用

その他、高温多湿、過負荷、スパークなどの問題で電動モータが御使用になれない場合、ユタニのエアーモータが威力を発揮します。

記事 Note

新旧キー一覧表  
New & Old Key List

旧規格 Old Type	新JIS規格 New JIS Type	
	キー寸法 Key Type	軸径 Shaft Dia
5×5	5×5	12~17
	6×6	17~22
7×7	8×7	22~30
10×8	10×8	30~38

- 御注文時、キータイプ御指示下さい。  
Please, instruct shape of drive shaft, Key type or regular.

## FEATURES OF YUTANI AIR MOTORS

- **Excellent Performance under Severe Working Conditions!**  
You can expect splendid performance even under heavy working conditions such as high temperature, high humidity, and overload.
- **Safety with Explosion-Proof Mechanism!**  
Yutani Air Motors are free from explosion with nonspark mechanism.
- **Long Life! Maintenance Free!**  
Yutani's long experience and advanced know-how assure you of excellent durability. You can rely on Yutani Air Motors.
- **Easy Operation!**  
Quick to start or stop. Easy to control the rotation speed.
- **Powerful! Light and Compact!**  
High efficiency with multi-vane rotary engine. Light weight and compact in size with unique reduction gear system.

## APPLICATIONS OF YUTANI AIR MOTORS

- **Ship-Building Industry**  
To open and to close hatches.  
To lift and to lower life boats.  
To lift and to lower ladders.  
To open and to close valves.
- **Automobile Industry**  
To make test run of engines (to substitute for starting motors).  
To drive truck (worktable car).  
To drive conveyors.
- **General Industry**  
To drive conveyors.  
To drive turntables.  
To open and to close doors of furnace.  
To mix paints, ink, etc.  
To substitute for electric motors of machine tools.

Yutani Air Motors have a wide range of applications and give you perfect satisfaction especially when electric motors can not be used because of severe working conditions (high temperature, high humidity, and overload), spark problem, maintenance, operation, size, etc.

## エアモータの特性(図1参照)

- 出力<トルク・回転数>は給気圧力および給気容量により変化します。
- 通常、トルクと回転数は最大馬力時の点、即ち無負荷回転数の約 $\frac{1}{2}$ の位置で示されています。したがってエアモータはトルクと回転数の実用範囲が広がっています。
- 始動トルクは、失速トルクの約70~80%です。

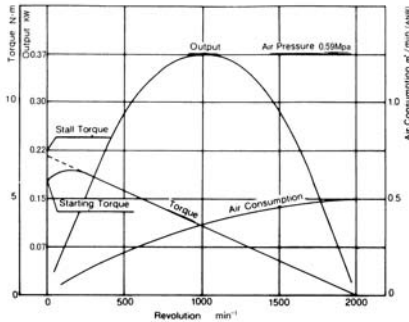


図1 <Fig.1> Efficiency Curve of Air Motor YM05-2000

## CHARACTERISTICS OF AIR MOTORS(See Fig.1)

- Output<torque/revolution> varies both with supply air pressure and with air volume.
- Figures of torque and revolution are based on the maximum power, i.e., approximately 1/2 of no load operation. Therefore, an air motor has a wider usable range of torque and revolution.
- Starting torque is approximately 70~80% of stall torque.

## 最適なエアモータを選ぶには(表1参照)

<例> 定格回転数1,000min<sup>-1</sup>で負荷トルク3.5N·mの場合、表1より定格回転数1,000min<sup>-1</sup>と負荷トルク3.5N·mの交点を読み、所要出力0.36Kwが得られます。カタログの規格表により所要出力0.36Kwより大きくて最も近い出力0.37Kwで無負荷回転数2,000min<sup>-1</sup>(定格回転数×2)のエアモーターYM05-2000が最適なエアモーターとして得られます。

負荷トルクが25N·mより大きい場合、表1で1/10の負荷トルクを用い、得られた出力を10倍したものが所要出力となります。

## HOW TO SELECT AN ADEQUATE AIR MOTOR(See Table1)

<Example> In case that a rated revolution is 1,000 min<sup>-1</sup> and a load is 3.5N·m, read the intersection of the rated revolution 1,000 min<sup>-1</sup> and the load 3.5N·m and know a required power 0.36Kw. From the specifications of this catalogue, select YM05-2000 with 0.37 Kw and 2,000 min<sup>-1</sup> of free speed(rated revolution×2) as an adequate air motor.

In case that a load is larger than 25N·m, use one-tenth of the real load in Table 1 and multiply a figure of intersection by 10 to find a real required power.

10000	0.26	0.51	0.77	1.03	1.54	2.06	2.57	3.09	3.60	4.12	4.63	5.15	6.18	7.72	10.30	12.87	15.45	20.59	25.74
7500	.19	.39	.58	.77	1.16	1.54	1.93	2.32	2.71	3.09	3.48	3.86	4.63	5.80	7.72	9.66	11.58	15.45	19.31
6000	.15	.31	.46	.62	.93	1.24	1.54	1.85	2.16	2.47	2.78	3.09	3.71	4.63	6.18	7.72	9.27	12.36	15.45
5000	.13	.26	.39	.51	.77	.76	1.29	1.54	1.80	2.06	2.32	2.57	3.09	3.86	5.15	6.44	7.72	10.30	12.87
4500	.12	.24	.35	.46	.70	.93	1.16	1.39	1.63	1.85	2.09	2.32	2.78	3.48	4.63	5.80	6.95	9.27	11.58
4000	.10	.21	.31	.41	.62	.82	1.03	1.24	1.44	1.65	1.85	2.06	2.47	3.09	4.12	5.15	6.18	8.24	10.30
3500	.09	.18	.27	.36	.54	.72	.90	1.08	1.27	1.44	1.63	1.80	2.16	2.71	3.60	4.51	5.41	7.21	9.01
3000	.08	.15	.24	.31	.46	.62	.77	.93	1.08	1.24	1.39	1.54	1.85	2.32	3.09	3.86	4.63	6.18	7.72
2500	.07	.13	.19	.26	.39	.51	.65	.77	.90	1.03	1.16	1.29	1.54	1.93	2.57	3.22	3.86	5.15	6.44
2000	.05	.10	.15	.21	.31	.41	.51	.62	.72	.82	.93	1.03	1.24	1.54	2.06	2.57	3.09	4.12	5.15
1750	.04	.09	.13	.18	.27	.36	.45	.54	.63	.72	.81	.90	1.08	1.35	1.80	2.25	2.71	3.60	4.51
1500	.04	.08	.12	.15	.24	.31	.39	.46	.54	.62	.70	.77	.93	1.16	1.54	1.93	2.32	3.09	3.86
1250	.03	.07	.10	.13	.19	.26	.32	.39	.45	.51	.58	.65	.77	.96	1.29	1.61	1.93	2.57	3.22
1000	.03	.05	.08	.10	.15	.21	.26	.31	.36	.41	.46	.51	.62	.77	1.03	1.29	1.54	2.06	2.57
750	.02	.04	.06	.08	.12	.15	.19	.24	.27	.31	.35	.39	.46	.58	.77	.96	1.16	1.54	1.93
600	.01	.03	.04	.06	.10	.13	.15	.18	.21	.25	.28	.31	.37	.46	.62	.77	.93	1.24	1.54
500	.01	.03	.04	.05	.08	.10	.13	.15	.18	.21	.24	.26	.31	.39	.51	.65	.77	1.03	1.29
450	.01	.02	.04	.04	.07	.10	.12	.14	.16	.18	.21	.24	.28	.35	.46	.58	.70	.93	1.16
400	.01	.02	.03	.04	.06	.08	.10	.13	.15	.16	.18	.21	.25	.31	.41	.51	.62	.82	1.03
350	.01	.01	.03	.04	.05	.07	.09	.11	.13	.15	.16	.18	.21	.27	.36	.45	.54	.72	.90
300	.01	.01	.02	.03	.04	.06	.08	.10	.11	.13	.14	.15	.18	.24	.31	.39	.46	.62	.77
250	.01	.01	.02	.03	.04	.05	.07	.08	.09	.10	.12	.13	.15	.19	.26	.32	.39	.51	.65
200	.01	.01	.01	.02	.03	.04	.05	.06	.07	.08	.10	.10	.13	.15	.21	.26	.31	.41	.51
150	.01	.01	.01	.01	.02	.03	.04	.04	.05	.06	.07	.08	.10	.12	.15	.19	.24	.31	.39
100				.01	.01	.02	.03	.03	.04	.04	.04	.05	.06	.08	.10	.13	.15	.21	.26

表1 <Table 1> Selection Table for Air Motors(Kw)

## エアモータYM型

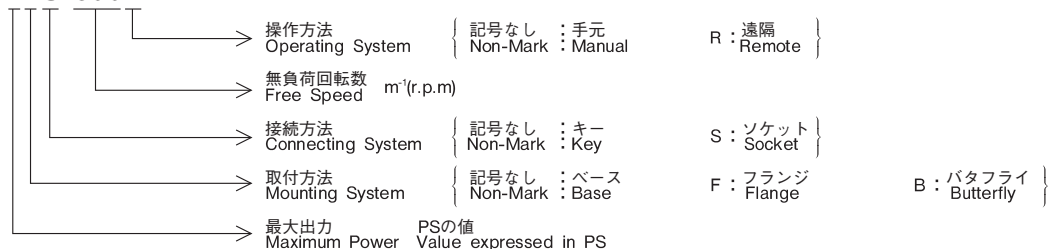
## AIR MOTORS YM TYPE

### ■特徴

- 可逆式（オプション：右回転式 又 左回転式）
- 多翼式ロータリエンジン
- 接続：キーまたはソケット
- 取付：ベース、フランジまたはバタフライ
- 操作：手元または遠隔
- オプション：ブレーキ付

### ■型式名の説明

#### YM1FS-500R



### ■FEATURES

- Reversible (option : Forward or Unforward)
- Multi-Vane Rotary Engine
- Connection : Key or Socket
- Mounting : Base, Flange or Butterfly
- Operation : Manual or Remote
- Option : Brake

### ■DESCRIPTION OF TYPE

### ■仕様〈SPECIFICATIONS〉

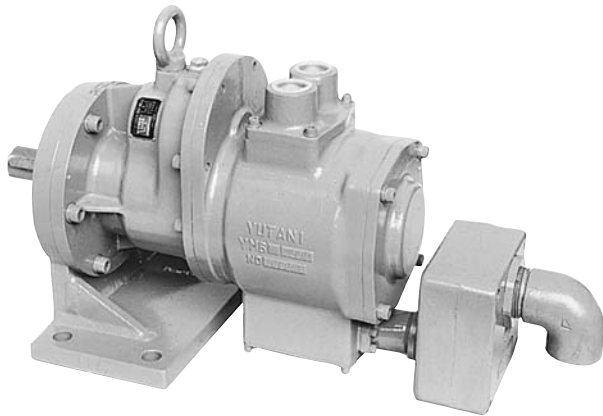
Model	Air Pressure MPa	Free Speed min <sup>3</sup> (r.p.m)	Speed at Max.Power min <sup>3</sup> (r.p.m)	Torque at Max.Power N·m	Maximum Power Kw	Air Consumption m <sup>3</sup> /min (ANR)	※ Mass kg			Hose Dia. mm
							A	B	C	
YM 05	0.59	800	400	8.7	0.37	0.5	6	4.5	9.5	
YM 05F		1,000	500	7						
		2,000	1,000	3.5						
YM 1	0.59	500	250	28	0.74	1.0	8	5.5	12.7	
YM 1F		800	400	18						
YM 1S		1,000	500	14						
YM 1FS		2,000	1,000	7						
YM 1BS										
YM 15	0.59	300	150	70	1.1	1.5	10	7	12.7	
YM 15F		600	300	35						
YM 15S		900	450	23						
YM 15FS		1,200	600	18						
YM 15BS										
YM 2	0.59	300	150	93	1.5	2.0	12	9	19.0	
YM 2F		600	300	47						
YM 2S		900	450	31						
YM 2FS		1,200	600	23						
YM 2BS										
YM 3	0.59	300	150	140	2.2	3.0	20	16	25.4	
YM 3F		600	300	70						
YM 3S		900	450	47						
YM 3FS		1,200	600	35						
YM 3BS										
YM 4	0.59	400	200	140	2.9	3.9	36.5	27	25.4	
YM 4F		800	400	70						
YM 4S		1,200	600	47						
YM 4FS		1,600	800	35						
YM 4BS										
YM 5	0.59	400	200	175	3.7	5.0	38	28.5	25.4	
YM 5F		800	400	88						
YM 5S		1,200	600	58						
YM 5FS		1,600	800	44						
YM 5BS										
YM 6	0.59	400	200	210	4.4	6.0	40	30.5	25.4	
YM 6F		800	400	105						
YM 6S		1,200	600	70						
YM 6FS		1,600	800	53						
YM 6BS										
YM 7	0.59	400	200	245	5.2	7.1	45	35.5	32.0	
YM 7F		800	400	123						
YM 7S		1,200	600	81						
YM 7FS		1,600	800	61						
YM 7BS										

※A…Base Type B…Flange Type C…Butterfly Type ※Weight : Upper Figures for Manual Operation Type Lower Figures for Remote Operation Type

## YM・YM-R型

### ■特徴

- 接続：キー
- 取付：ベース
- 操作：手元または遠隔

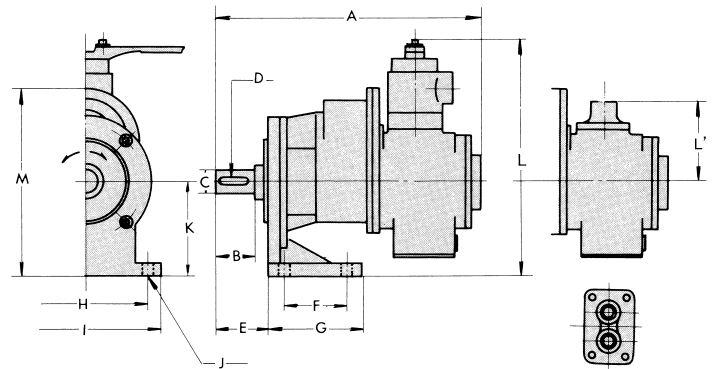


**YM6-400R**  
遠隔操作式  
Remote Operation Type

## YM・YM-R TYPE

### ■FEATURES

- Connection : Key
- Mounting : Base
- Operation : Manual or Remote



手元操作式  
Manual Operation Type

遠隔操作式  
Remote Operation Type

### ■主要寸法 <DIMENSIONS>

<mm>

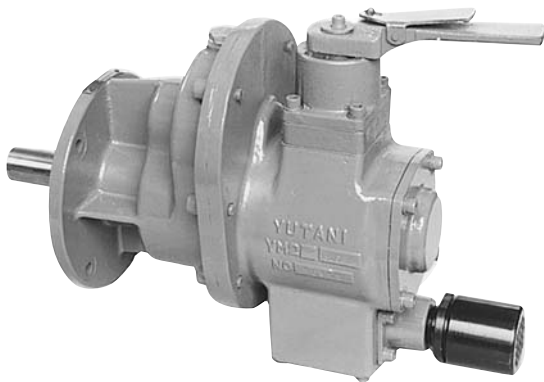
Model※	Dwg.No.	A	B	φ C	D <sub>Key</sub>	E	F	G	H	I	J	K	L	L'	M
<b>YM05-800 (R)</b> 1000 (R) 2000 (R)	682×※※	210	30	15	5×5×22	35	50	90	120	145	4~φ11	70	180	60	140
<b>YM1-500 (R)</b> 800 (R) 1000 (R) 2000 (R)	684×※※	250	40	20	6×6×28	55	60	100	130	160	4~φ11	90	215	66	185
<b>YM15-300 (R)</b> 600 (R) 900 (R) 1200 (R)	685×※※	295	52	25	8×7×40	65	80	120	150	180	4~φ11	105	245	90	230
<b>YM2-300 (R)</b> 600 (R) 900 (R) 1200 (R)	686×※※	315	50	25	8×7×40	65	80	120	150	180	4~φ11	105	250	90	230
<b>YM3-300 (R)</b> 600 (R) 900 (R) 1200 (R)	687×※※	380	50	30	8×7×40	65	90	140	160	190	4~φ13	130	300	110	300
<b>YM4-400 (R)</b> 800 (R) 1200 (R) 1600 (R)	688×※※	415	60	35	10×8×50	85	100	150	200	240	4~φ19	150	375	126	340
<b>YM5-400 (R)</b> 800 (R) 1200 (R) 1600 (R)	689×※※	445	60	35	10×8×50	85	100	150	200	240	4~φ19	150	375	126	340
<b>YM6-400 (R)</b> 800 (R) 1200 (R) 1600 (R)	690×※※	440	60	35	10×8×50	85	100	150	200	240	4~φ19	150	380	135	340
<b>YM7-400 (R)</b> 800 (R) 1200 (R) 1600 (R)	691×※※	460	60	35	10×8×50	85	100	150	200	240	4~φ19	150	385	135	340

※Non-Mark.....Manual Operation Type R.....Remote Operation Type

## YM-F・YM-F-R型

### ■特徴

- 接続：キー
- 取付：フランジ
- 操作：手元または遠隔

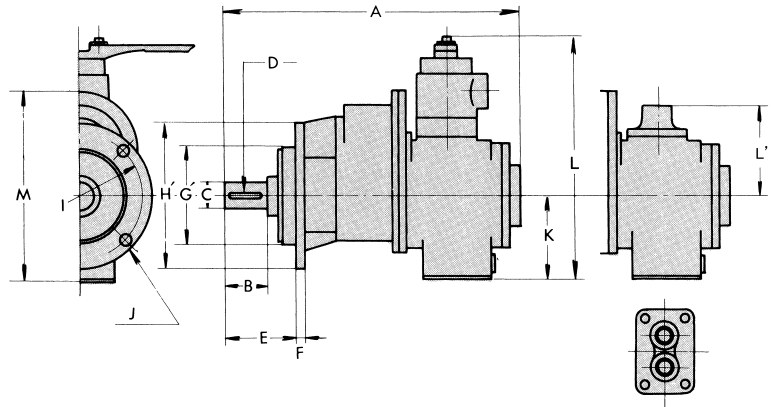


**YM2F-300**  
手元操作式  
Manual Operation Type

## YM-F・YM-F-R TYPE

### ■FEATURES

- Connection : Key
- Mounting : Flange
- Operation : Manual or Remote



手元操作式  
Manual Operation Type

遠隔操作式  
Remote Operation Type

### ■主要寸法 <DIMENSIONS>

<mm>

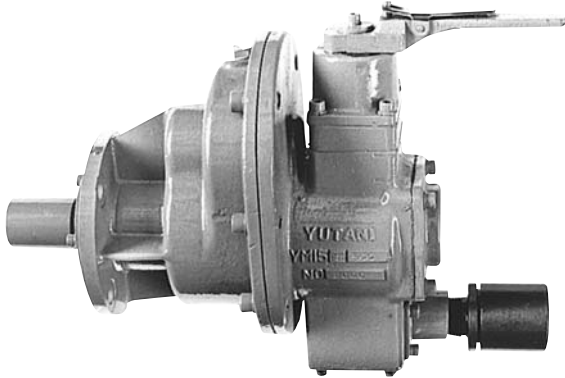
Model※	Dwg.No.	A	B	φC	D <sub>Key</sub>	E	F	G	H	I	J	K	L	L'	M
YM05F-800 (R) 1000 (R) 2000 (R)	682×※※	200	30	15	5×5×22	45	10	70	100	85	4~φ9	68	178	60	138
YM1F-500 (R) 800 (R) 1000 (R) 2000 (R)	684×※※	250	40	20	6×6×28	65	10	72	135	110	4~φ9	80	205	66	175
YM15F-300 (R) 600 (R) 900 (R) 1200 (R)	685×※※	295	52	25	8×7×40	75	10	90	150	130	4~φ9	90	230	90	215
YM2F-300 (R) 600 (R) 900 (R) 1200 (R)	686×※※	315	50	25	8×7×40	75	10	90	150	130	4~φ9	95	240	90	220
YM3F-300 (R) 600 (R) 900 (R) 1200 (R)	687×※※	380	50	30	8×7×40	77	12	100	155	130	4~φ11	100	270	110	270
YM4F-400 (R) 800 (R) 1200 (R) 1600 (R)	688×※※	415	60	35	10×8×50	105	14	130	200	175	6~φ11	120	345	126	310
YM5F-400 (R) 800 (R) 1200 (R) 1600 (R)	689×※※	445	60	35	10×8×50	105	14	130	200	175	6~φ11	120	345	126	310
YM6F-400 (R) 800 (R) 1200 (R) 1600 (R)	690×※※	440	60	35	10×8×50	105	14	130	200	175	6~φ11	128	358	135	318
YM7F-400 (R) 800 (R) 1200 (R) 1600 (R)	691×※※	460	60	35	10×8×50	105	14	130	200	175	6~φ11	130	365	135	320

※Non-Mark.....Manual Operation Type R.....Remote Operation Type

## YM-S・YM-S-R型

### ■特徴

- 接続：ソケット
- 取付：ベース
- 操作：手元または遠隔

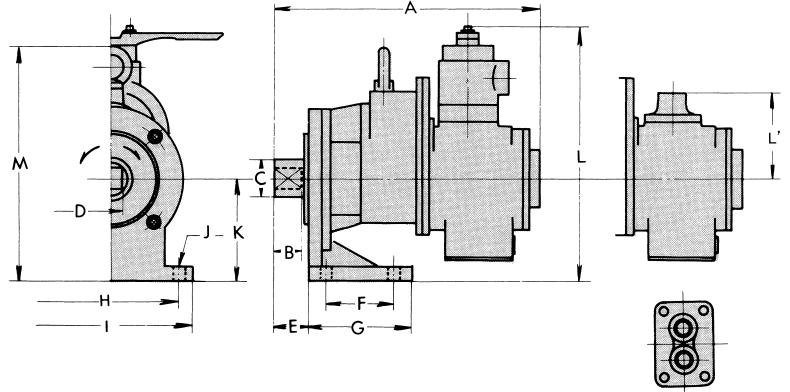


**YM15S-600**  
手元操作式  
Manual Operation Type

## YM-S・YM-S-R TYPE

### ■FEATURES

- Connection : Socket
- Mounting : Base
- Operation : Manual or Remote



手元操作式  
Manual Operation Type

遠隔操作式  
Remote Operation Type

### ■主要寸法 <DIMENSIONS>

<mm>

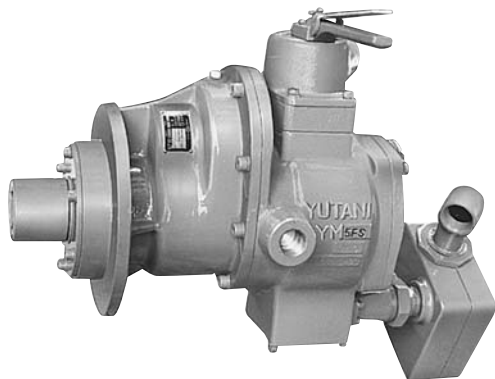
Model※	Dwg.No.	A	B	φ C	SqD	E	F	G	H	I	J	K	L	L'	M
YM1S-500 (R) 800 (R) 1000 (R) 2000 (R)	684×※※	220	24	30	15	25	60	100	130	160	4~φ11	90	215	66	185
YM15S-300 (R) 600 (R) 900 (R) 1200 (R)	685×※※	265	40	40	19.5	34	80	120	150	180	4~φ11	105	245	90	230
YM2S-300 (R) 600 (R) 900 (R) 1200 (R)	686×※※	285	40	40	19.5	34	80	120	150	180	4~φ11	105	250	90	230
YM3S-300 (R) 600 (R) 900 (R) 1200 (R)	687×※※	350	45	50	26.5	36	90	140	160	190	4~φ13	130	300	110	300
YM4S-400 (R) 800 (R) 1200 (R) 1600 (R)	688×※※	380	48	55	28	50	100	150	200	240	4~φ19	150	375	126	340
YM5S-400 (R) 800 (R) 1200 (R) 1600 (R)	689×※※	410	48	55	28	50	100	150	200	240	4~φ19	150	375	126	340
YM6S-400 (R) 800 (R) 1200 (R) 1600 (R)	690×※※	405	48	55	28	50	100	150	200	240	4~φ19	150	380	135	340
YM7S-400 (R) 800 (R) 1200 (R) 1600 (R)	691×※※	425	48	62	34	50	100	150	200	240	4~φ19	150	385	135	340

※Non-Mark.....Manual Operation Type R.....Remote Operation Type

## YM-FS・YM-FS-R型

### ■特徴

- 接続：ソケット
- 取付：フランジ
- 操作：手元または遠隔

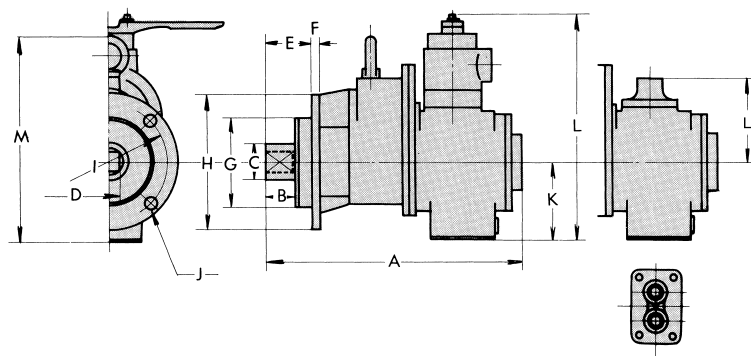


**YM5FS-1200**  
手元操作式  
Manual Operation Type

## YM-FS・YM-FS-R TYPE

### ■FEATURES

- Connection : Socket
- Mounting : Flange
- Operation : Manual or Remote



手元操作式  
Manual Operation Type

遠隔操作式  
Remote Operation Type

### ■主要寸法 <DIMENSIONS>

<mm>

Model※	Dwg.No.	A	B	φ C	SqD	E	F	φ G	φ H	I	J	K	L	L'	M
YM1FS-500 (R)	684×※※	220	24	30	15	35	10	72	135	110	4~φ9	80	205	66	175
800 (R)															
1000 (R)															
2000 (R)															
YM15FS-300 (R)	685×※※	265	40	40	19.5	44	10	90	150	130	4~φ9	90	230	90	215
600 (R)															
900 (R)															
1200 (R)															
YM2FS-300 (R)	686×※※	285	40	40	19.5	44	10	90	150	130	4~φ9	95	240	90	220
600 (R)															
900 (R)															
1200 (R)															
YM3FS-300 (R)	687×※※	350	45	50	26.5	48	12	100	155	130	4~φ11	100	270	110	270
600 (R)															
900 (R)															
1200 (R)															
YM4FS-400 (R)	688×※※	380	48	55	28	70	14	130	200	175	6~φ11	120	345	126	310
800 (R)															
1200 (R)															
1600 (R)															
YM5FS-400 (R)	689×※※	410	48	55	28	70	14	130	200	175	6~φ11	120	345	126	310
800 (R)															
1200 (R)															
1600 (R)															
YM6FS-400 (R)	690×※※	405	48	55	28	70	14	130	200	175	6~φ11	128	358	135	318
800 (R)															
1200 (R)															
1600 (R)															
YM7FS-400 (R)	691×※※	425	48	62	34	70	14	130	200	175	6~φ11	130	365	135	320
800 (R)															
1200 (R)															
1600 (R)															

※Non-Mark.....Manual Operation Type R.....Remote Operation Type

## YM-BS・YM-BS-R型

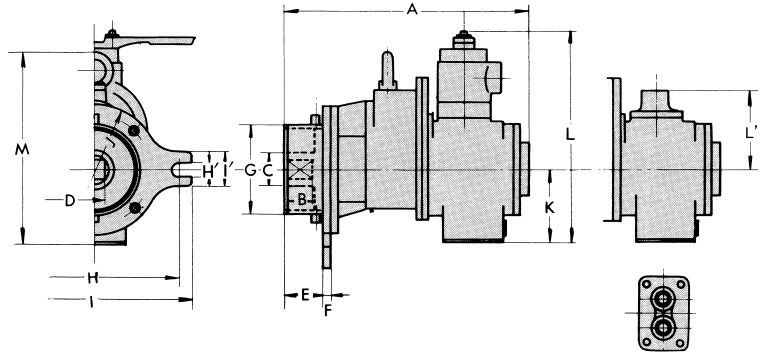
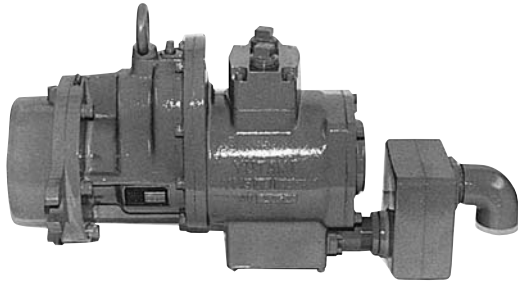
## YM-BS・YM-BS-R TYPE

### ■特徴

- 接続：ソケット
- 取付：バタフライ
- 操作：手元または遠隔

### ■FEATURES

- Connection : Socket
- Mounting : Butterfly
- Operation : Manual or Remote



**YM5BS-800R**  
遠隔操作式  
Remote Operation Type

手元操作式  
Manual Operation Type

遠隔操作式  
Remote Operation Type

### ■主要寸法 <DIMENSIONS>

<mm>

Model※	Dwg.No.	A	B	φ C	SqD	E	F	φ G	H	H'	I	I'	J	K	L	L'	M
YM1BS-500 (R)	684×※※	222	24	30	15	24	13	100	220	18	256	40	135	80	205	66	175
800 (R)																	
1000 (R)																	
2000 (R)																	
YM15BS-300 (R)	685×※※	267	40	40	19.5	32	14	130	220	18	256	40	150	90	230	90	215
600 (R)																	
900 (R)																	
1200 (R)																	
YM2BS-300 (R)	686×※※	287	40	40	19.5	32	14	130	220	18	256	40	150	95	240	90	220
600 (R)																	
900 (R)																	
1200 (R)																	
YM3BS-300 (R)	687×※※	352	45	50	26.5	37	15	130	220	18	256	40	155	100	270	110	270
600 (R)																	
900 (R)																	
1200 (R)																	
YM4BS-400 (R)	688×※※	382	48	55	28	57	15	150	270	20	316	56	200	120	345	126	310
800 (R)																	
1200 (R)																	
1600 (R)																	
YM5BS-400 (R)	689×※※	412	48	55	28	57	15	150	270	20	316	56	200	120	345	126	310
800 (R)																	
1200 (R)																	
1600 (R)																	
YM6BS-400 (R)	690×※※	407	48	55	28	57	15	150	270	20	316	56	200	128	358	135	318
800 (R)																	
1200 (R)																	
1600 (R)																	
YM7BS-400 (R)	691×※※	427	48	62	34	57	15	150	270	24	316	60	200	130	365	135	320
800 (R)																	
1200 (R)																	
1600 (R)																	

※Non-Mark.....Manual Operation Type R.....Remote Operation Type

## エアモータNRM型

## AIR MOTORS NRM TYPE

### ■特徴

- 可逆式
- 多翼式ロータリエンジン
- 遊星歯車減速機構
- 接続：キー
- 取付：フランジ
- 操作：遠隔

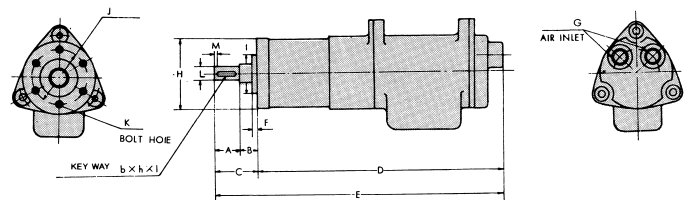
### ■FEATURES

- Reversible
- Multi-Vane Rotary Engine
- Planetary Gear Mechanism
- Connection : Key
- Mounting : Flange
- Operation : Remote

### ■型式名の説明<DESCRIPTION OF TYPE>



NRM3-180



### ■仕様 <SPECIFICATIONS>

Model	Air Pressure MPa	Free Speed $\text{min}^{-1}(\text{r.p.m})$	Speed at Max.Power $\text{min}^{-1}(\text{r.p.m})$	Torque at Max.Power N·m	Maximum Power Kw	Starting Torque N·m	Air Con- sumption $\text{m}^3/\text{min}(\text{ANR})$	Mass kg	Hose Diameter mm
NRM08-540 460 380	0.59	540	270	21	0.59	33	0.7	2.2	9.5
		460	230	25		39			
		380	190	29		47			
NRM15-380 320 250 220	0.59	380	190	55	1.1	88	1.3	4.2	12.7
		320	160	66		105			
		250	130	81		130			
		220	110	95		152			
NRM18-200	0.59	200	100	126	1.3	201	1.6	7.3	12.7
NRM22-200	0.59	200	100	155	1.6	248	2.0	7.5	19.0
NRM3 - 220 180 150 120	0.59	220	110	191	2.2	306	2.7	9.5	19.0
		180	90	233		373			
		150	75	279		447			
		120	60	351		562			

### ■主要寸法 <DIMENSIONS>

<mm>

Model	Dwg.No.	A	B	C	D	E	F	G Rc(PT)	$\phi$ H	$\phi$ I	J	K	$\phi$ L	M	Key $b \times h \times l$
NRM08-540 460 380	212×※※	25	20	45	200	245	4.0	$\frac{3}{8}$	56	$32^{+0}_{-0.016}$	45	6~M6	$15^{+0}_{-0.011}$	3	5×5×20
NRM15-380 320 250 220	238×※※	28	25	53	228	281	4.5	$\frac{1}{2}$	70	$46^{+0}_{-0.016}$	58	6~M8	$18^{+0}_{-0.011}$	3	6×6×22
NRM18-200	205×※※	28	25	53	274	327	3.0	$\frac{1}{2}$	80	$50^{+0}_{-0.016}$	65	6~M8	$18^{+0}_{-0.011}$	3	8×7×28
NRM22-200	224×※※	35	30	65	295	360	4.0	$\frac{3}{4}$	86	$54^{+0}_{-0.019}$	70	6~M8	$22^{+0}_{-0.013}$	3	
NRM3 - 220 180 150 120	229×※※	35	32	67	304	371	5.0	$\frac{3}{4}$	100	$60^{+0}_{-0.019}$	80	6~M8	$25^{+0}_{-0.013}$	3	

## エアモータNRL-K型

## AIR MOTORS NRL-K TYPE

### ■特徴

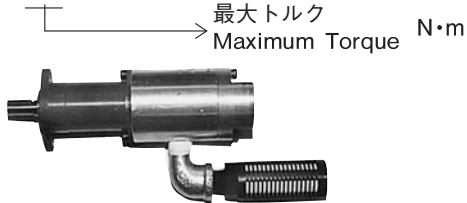
- 小型・軽量・高出力
- 可逆式（オプション：右回転式 又 左回転式）
- 多翼式ロータリエンジン
- 遊星歯車減速機構
- 接続：キー及び四角
- 取付：フランジ
- 操作：遠隔

### ■FEATURES

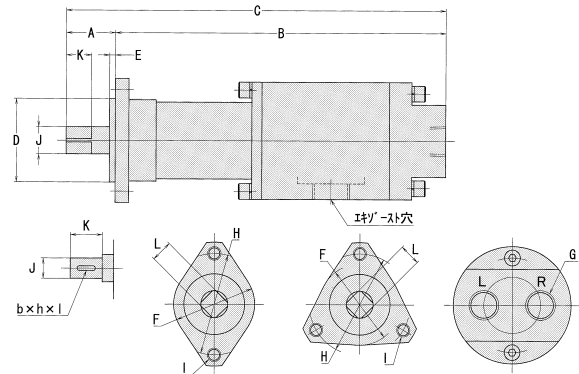
- Compact · Light · Weight · High Out put
- Reversible (Option: Forward or Unforward)
- Multi-Vane Rotary Engine
- Planetary Gear Mechanism
- Connection : Key or Square
- Mounting : Flange
- Operation : Remote

### ■型式名の説明<DESCRIPTION OF TYPE>

NRL-16K



NRL-16K



### ■仕様 <SPECIFICATIONS>

NRL-8K~40K NRL-50K~340K

Model	Air Pressure MPa	Free Speed min <sup>1</sup> (r.p.m)	Speed at Max.PS min <sup>1</sup> (r.p.m)	Torque at Max.PS N·m	Maximum Power kw	Starting Torque N·m	Air Con- sumption ml/min(ANR)	Mass kg	Hose Diameter mm
NRL-8K	0.39	550	275	3.3	0.10	3.3	0.2	0.75	6.3
NRL-12K		380	190	4.6		4.6			
NRL-16K		290	145	6.5		6.5			
NRL-26K	0.39	340	170	10	0.19	10	0.35	1.5	6.3
NRL-33K		270	135	13		13			
NRL-40K		220	110	16		16			
NRL-50K	0.39	230	115	21	0.25	21	0.6	1.8	9.5
NRL-60K		200	100	25		25			
NRL-70K	0.39	220	100	30	0.32	30	0.7	2.0	9.5
NRL-90K		160	80	37		37			
NRL-110K	0.39	180	80	43	0.36	43	0.8	3.9	9.5
NRL-130K		162	65	53		53			
NRL-160K		130	55	65		65			
NRL-210K	0.39	102	51	84	0.45	84	0.9	4.0	9.5
NRL-240K	0.39	140	70	97	0.70	97	1.4	6.8	12.7
NRL-280K		118	59	114		114			
NRL-340K		92	46	142		139			

### ■主要寸法 <DIMENSIONS>

<mm>

Model	A	B	C	D	E	F	G R <sub>G</sub> (PT)	H	I	Spindle Type					
										Square			Key		
										φ J	K	□L	φ J'	K'	b×h×l
NRL-8K NRL-12K NRL-16K	21.5	148	169.5	27	2.5	52	1/4	45	2~M6	12	11	9.5	10 <sup>0</sup> <sub>-0.01</sub>	14	4×4×10
NRL-26K NRL-33K NRL-40K	26.5	171.5	198	32	2.5	57	1/4	50	2~M6	15	16	12.7	15 <sup>0</sup> <sub>-0.01</sub>	20	5×5×16
NRL-50K NRL-60K	38	203.5	241.5	37	4	72	3/8	63	3~M8	20	18	15.9	18 <sup>0</sup> <sub>-0.011</sub>	24	6×6×20
NRL-70K NRL-90K		215.5	253.5												
NRL-110K NRL-130K	38	224.5	262.5	50	4	84	3/8	76	3~M8	20	18	15.9	18 <sup>0</sup> <sub>-0.011</sub>	24	6×6×20
NRL-160K	42	224.5	270.5	50	4	84									
NRL-210K		236.5	282.5												
NRL-240K NRL-280K NRL-340K	63	276	338.5	60	4	110	1/2	98	3~M10	30	31	24	30 <sup>0</sup> <sub>-0.013</sub>	40	8×7×28

注意：空気圧力0.39Mpa以下でご使用下さい。 Caution：Please use air pressure at 0.39 Mpa or below.

## エアモータRM型

## AIR MOTORS RM TYPE

### ■特徴

- 高トルク
- 可逆式
- 多翼式ロータリエンジン
- 遊星歯車減速機構
- 接続：キーまたはスプライン
- 取付：ベース
- 操作：手元または遠隔

### ■FEATURES

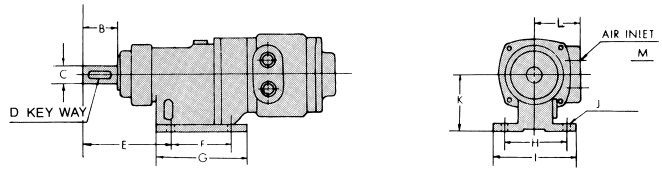
- High Torque
- Reversible
- Multi-Vane Rotary Engine
- Planetary Gear Mechanism
- Connection : Key or Spline
- Mounting : Base
- Operation : Manual or Remote



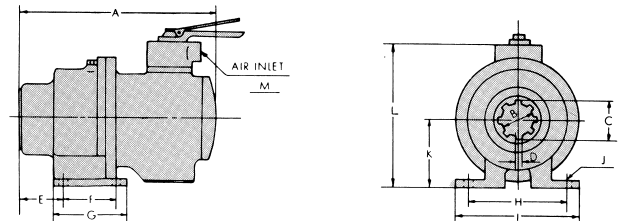
**YRM05-450**  
遠隔操作式のみ  
Remote Operation Type Only



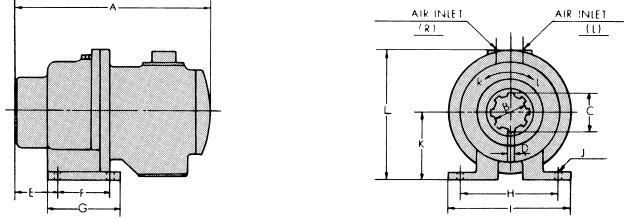
**YRM15-240**  
遠隔操作式のみ  
Remote Operation Type Only



**YRM05-450 YRM15-240** エアインレット後方  
**YRM15B-460 32-RM** REAR AIR INLET



**3RM,5RHM** 手元操作式 (Manual Operation Type)



**3RM,5RHM** 遠隔操作式 (Remote Operation Type)

### ■仕様 (SPECIFICATIONS)

Model	Air Pressure MPa	Free Speed min <sup>-1</sup> (r.p.m)	Speed at Max.Power min <sup>-1</sup> (r.p.m)	Torque at Max.Power N·m	Maximum Power kw	Starting Torque N·m	Air Consumption ml/min (ANR)	Mass kg	Hose Diameter mm
<b>YRM05-450</b>	0.59	450	225	25	0.59	41	0.7	3.9	12.7
<b>YRM15-240</b>	0.59	240	120	93	1.2	149	1.5	10.4	19.0
<b>YRM15B-460</b>	0.59	460	230	38	0.96	61	1.2	5.0	12.7
<b>32-RM</b>	0.59	455	230	71	1.7	113	2.0	14.5	19.0
<b>3RM</b>	0.59	40	20	706	1.5	1,079	2.5	30.0	25.4
<b>5RHM</b>	0.59	20	10	1,177	1.5	1,863	2.5	42.0	25.4

### ■主要寸法 (DIMENSIONS)

#### ○手元操作式 (Manual Operation Type)

(mm)

Model	Dwg.No.	A	B	C	D	E	F	G	H	I	J	K	L	Rc(PT)M
<b>3RM</b>	769×34	291	50.3	58.3	10.2	72	80	120	160	200	4~φ14	115	240	3/4
<b>5RHM</b>	757×10	336	50.3	58.3	10.2	72	85	125	160	200	4~φ14	115	258	3/4

#### ○遠隔操作式 (Remote Operation Type)

(mm)

Model	Dwg.No.	A	B	C	D <sub>Key</sub>	E	F	G	H	I	J	K	L	Rc(PT)M
<b>YRM05-450</b>	618×14	233	40	φ 18 <sup>0</sup> <sub>-0.011</sub>	6×6×35	141	55	90	80	104	4~φ10	60	52	3/8
<b>YRM15-240</b>	632×18	331	30	φ 20 <sup>0</sup> <sub>-0.013</sub>	6×6×24	87	60	90	100	130	4~φ10	75	40	1/2
<b>YRM15B-460</b>	606×48	277	40	φ 20 <sup>0</sup> <sub>-0.013</sub>	6×6×40	98	70	100	90	115	4~φ8.5	61	66	3/8
<b>32-RM</b>	601×78	328	30	φ 25 <sup>0</sup> <sub>-0.013</sub>	8×7×24	93	50	100	90	120	4~φ10	76	68	3/4
<b>3RM</b>	769×40	291	50.3	58.3	10.2	72	80	120	160	200	4~φ14	115	207	3/4
<b>5RHM</b>	757×51	336	50.3	58.3	10.2	72	85	125	160	200	4~φ14	115	220	3/4

## 取扱説明

### 1. 配管 (図2参照)

- (1)配管取出口は、エアータンクの底面より充分高い位置に設けて下さい。
- (2)全ての配管は1/100以上の勾配を設けてふ設して下さい。
- (3)配管径はエアーモータの空気消費量を充分満足できる大きさにして下さい。
- (4)主管からの取出口はその管の高所部から取り出し、低所部やめくらの部には必ずドレン分離器を設けて下さい。

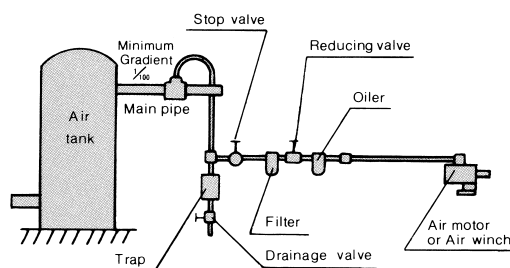
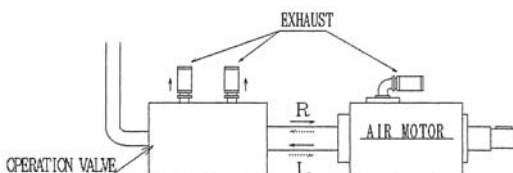


図2 <Fig.2> 配管<Piping>



### 2. 使用上の御注意

- (1)空気圧力を0.59MPa (6kg/cm<sup>2</sup>または85psi) にして下さい。
- (2)乾燥した清浄な空気を使用して下さい。
- (3)定時注油を実施して下さい。
- (4)使用前にネジ部およびナットの弛みを十分点検して下さい。
- (5)安全のため、作業が終了しましたらエアーモータ、エアーウインチのバルブおよびストップバルブが閉じていることを確認して下さい。作業を再開する場合、エアーモータ、エアーウインチのバルブが閉じているのを確認してからストップバルブを開けて下さい。
- (6)製品の管理上、定時検査を実施して下さい。

### 3. 給油

- (1)エンジン部……タービン油 (ISO VG32)
- (2)ギヤケース部…ギヤ油VG32、オイルゲージがない場合にはリチウムセッケン基グリース#2。

### 4. 故障原因とその処置

- (1)エアーは入っているがスタートしない。  
原因：ロータベーンの膨張。  
処置：エンジンを分解し、ロータベーンの長さがロータの長さより0.05~0.1mm短くなるよう調整する。
- (2)作動中、急に停まった。  
原因：砂、ゴミなどのエンジン内への吸い込み、または、ロータベーンの破損。  
処置：エンジンを分解し、オイル洗浄する。または、ロータベーンを取替える。
- (3)エンジンがオーバーヒートし、出力が低下した。  
原因：潤滑不足  
処置：十分に給油する。作業を中止し、エンジンを冷却する。

## INSTRUCTION MANUAL

### 1. PIPING (See Fig.2)

- (1) The pipe outlet must be located at a position sufficiently higher than the bottom of the air tank.
- (2) All piping arrangement must have a slope of 1/100 or more.
- (3) Pipe diameter must be large enough to sufficiently handle required air consumption volume.
- (4) Outlets from the main must be provided only where the main has sufficient height. Drain separators must be equipped at all low and closed position.

### 2. OPERATION

- (1) Maintain air pressure at 0.59 MPa (6kg/cm<sup>2</sup> or 85 psi) in use.
- (2) Use only clean-dry air.
- (3) Be sure to lubricate periodically.
- (4) Thoroughly check all parts for loose screws or nuts before use.
- (5) For safety control, be sure to close the stop valve and valve of Air Motor or Air Winch when work is completed. When restarting operation, open the stop valve after making certain that the valve of Air Motor or Air Winch is closed.
- (6) Make periodic inspections for proper maintenance of Air Motor or Air Winch.

### 3. LUBRICATION

- (1) Engine Part.....Turbine oil ISO VG32
- (2) Gearcase Part...Gear oil ISO VG150 or lithium alkaline grease #2 if an oil gauge is not installed.

### 4. POSSIBLE TROUBLESHOOTINGS

- (1) Air is supplied but does not start.  
Cause: Swelling of the rotor vane - stretching out to the inner surface of the top/bottom bearing case.  
Measure: Disassemble the engine to remove the rotor vane. Adjust the length of the rotor vane so that its length is slightly shorter (0.05~0.1mm) than that of the rotor.
- (2) Abrupt stop during operation.  
Cause: Suction of sand, dust, etc. into the engine or breakage of the rotor vane.  
Measure: Disassemble the engine and clean the engine room or replace the rotor vane.
- (3) Overheat of the engine and drop of output.  
Cause: Insufficient lubrication.  
Measure: Make sufficient lubrication. Interrupt operation to cool down.