

INDUSTRIAL PRODUCT CATALOG

Two-Stage PMV Oil-Injected Series

High-Performance Industrial Air Compression Systems

22 kW – 355 kW · 30 HP – 480 HP · 7 / 8 / 10 / 13 bar

5:6

BAOSI DUAL-STAGE
ROTORS

IE5+

PMV DIRECT DRIVE

55°C

AMBIENT RATING

±0.1

BAR STABILITY

35%

ENERGY DELTA

CE CERTIFIED

ISO 9001

BIS · SABER READY

AirSpace Machinery Co., Ltd. · Power On, Worry Off

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A complete engineering and procurement dossier for the AirSpace Two-Stage PMV Oil-Injected Series — engineered for continuous heavy-duty industrial application across tropical, arid, and temperate export markets from **22 kW to 355 kW (30 HP to 480 HP)**.

01	The Engineering Moat	4,000 m ² Shanghai facility · 20-year heritage · "The Fourth Utility"
02	Technical Advantages — Dual-Stage Power	BAOSI 5:6 rotors · inter-stage cooling · IE5+ PMV
03	Export Excellence — The Global Wedge	55°C hardening · 7–35 day Strike delivery · CE/ISO/BIS/SABER
04	Product Lineup — Extended Technical Data	22–355 kW schedule · 7/8/10/13 bar · FAD & dimensions
05	The AirSpace ROI Audit & Zero Ransom	35% verified delta · 7-Factor ROI · no proprietary locks
06	Contact & Certification	Manufacturer details · hotlines · direct channels

" Compressed air is **The Fourth Utility** — after electricity, water, and gas. When it stops, everything stops. AirSpace engineers it to never stop.

4,000 m²

SHANGHAI MANUFACTURING BASE

20 Yrs

ENGINEERING HERITAGE

¥100M+

ANNUAL TURNOVER

At AirSpace Machinery, we don't just build compressors — we **engineer uptime**. Two decades of technical heritage, a 4,000 m² advanced manufacturing facility in Shanghai, and a ¥100M+ annual turnover fund an engineering moat built for the world's most demanding continuous-duty industrial environments.

4,000m²

ADVANCED
INDUSTRIAL FACILITY,
SHANGHAI

20 yrs

ENGINEERING
HERITAGE & TRACK
RECORD

¥100M+

ANNUAL SALES
TURNOVER

55°C

TROPICAL AMBIENT
RATING — NO
DERATING

MANUFACTURING BASE

A Purpose-Built 4,000 m² Shanghai Facility

Located at No.2777 Wanfeng Road, Fengjing, Jinshan, our advanced industrial facility is engineered for precision rotor machining, integrated PMV motor assembly, full-load test benches, and export-grade crating — all under one roof for total quality control.

COMMERCIAL SCALE

¥100M+ Annual Turnover

Financial mass that secures the dual-source air-end supply chain (BAOSI + Hanbell), sustains an 8,000-hour test regime, and underwrites the 7–35 day factory-direct delivery promise — without compromising component grade.

ENGINEERING HERITAGE

20 Years of Compressor Engineering Excellence

Two decades of continuous refinement across PMV variable-frequency, oil-free Class 0, and two-stage high-pressure platforms. Every export unit inherits a discipline of test, measure, and verify before it ever leaves the dock.

OPERATING DOCTRINE

"The Fourth Utility" — Built for Continuous Duty

Compressed air is the fourth utility after electricity, water, and gas. The Two-Stage PMV Series is engineered for 24/7 continuous heavy-duty industrial application — automotive, electronics, pharma, textiles, and laser cutting — where a stoppage is measured in lost production, not inconvenience.

" We deliver **The Fourth Utility** to the world's most demanding industrial environments. When the line runs 24/7, the compressor is not equipment — it is **uptime itself**.

02

TECHNOLOGY

DUAL-STAGE POWER ARCHITECTURE

Technical Advantages — Dual-Stage Power

The Two-Stage PMV Oil-Injected Series stacks two BAOSI 5:6 asymmetric rotors in series with an inter-stage cooling circuit, driven by an IE5+ ultra-premium permanent-magnet motor in direct connection. The result: lower specific energy, higher volumetric efficiency at elevated pressure, and surgical ± 0.1 bar pressure stability — with zero unload tax.



AirSpace Two-Stage PMV unit — rugged industrial enclosure, IE5+ direct-drive, IP55 hardening, 304SS piping (representative model shown).

AIR-END

BAOSI 5:6 Asymmetric Dual-Stage Rotor Profile

The 5:6 asymmetric rotor profile delivers a 15% internal friction reduction over symmetric designs. Two stages in series share the compression work, cutting per-stage compression ratio and the heat load that robs single-stage units of efficiency at 10–13 bar.

DRIVE TRAIN

IE5+ PMV Integration — 100% Transmission Efficiency

The high-efficiency permanent-magnet motor and screw rotor share an integrated shaft direct-connection structure — no gearbox, no belts, no transmission loss. IE5+ ultra-premium efficiency holds across the full speed range, not just at full load.

THERMODYNAMICS

Inter-Stage Cooling for Lower Stage-2 Inlet Temperature

An integrated inter-cooler drops the charge temperature between stages, lowering the stage-2 inlet temperature and recovering volumetric efficiency. Cooler stage-2 air means denser charge, less slip, and more usable FAD at the same motor power.

CONTROL & STABILITY

±0.1 Bar Stability & Zero Unload Tax

VFD control matches motor output to real air demand, holding pressure within ±0.1 bar — surgical precision for electronics, textile looms, and pharma fermentation. When demand drops, the motor ramps to near-zero draw, eliminating the 40–70% idle bleed of fixed-speed units.

±0.1 bar

PRESSURE STABILITY

IE5+

ULTRA-PREMIUM MOTOR CLASS

15–20%

GAIN VS SINGLE-STAGE PMV

03
EXPORT

THE GLOBAL WEDGE

Export Excellence — The Global Wedge

We remove the friction of international procurement. Every export unit is tropical-hardened, factory-direct delivered on a 7–35 day "Strike" schedule, and ships with a pre-cleared compliance dossier covering CE,

ISO 9001, India BIS, and Saudi SABER — so your compressor clears customs, not your calendar.

CLIMATE HARDENING

55°C Tropical Ambient Rating — No Derating

Standard on every export unit. While legacy brands trip their thermal protection at 40°C, AirSpace keeps your line running through tropical heatwaves, equatorial summers, and Middle Eastern summer peaks — at full rated output, with no capacity derating.

COMPLIANCE

Pre-Cleared CE, ISO 9001, BIS & SABER Logistics

A single compliance package clears four major import regimes at once: CE (Machinery & Low Voltage Directive), ISO 9001:2015, India BIS IS 17093:2026, and Saudi SASO SABER PCoC/SCoC. AU/NZ RCM & AS/NZS 3788 supported. Documentation ships before the crate does.

DELIVERY

7–35 Day Factory-Direct "Strike" Delivery

Bypassing global port congestion with pre-cleared customs dossiers and factory-direct logistics. The "Strike" delivery hook puts reliable plant-air or instrument-air on your floor while competitors' specialist parts are still on order — a 35-day promise that beats European OEM lead times of 12–20 weeks.

INDUSTRIAL HARDENING

IP55 Protection & 304SS Piping — Standard

Standard industrial hardening for corrosion resistance and wash-down protection. Wide-voltage tolerance (380V–480V, with sag ride-through down to 165V) handles unstable grid conditions — common across PLN and emerging-market networks — without external stabilizers.

Market	Compliance Standard	Status	Delivery Window
European Union	CE — Machinery & Low Voltage Directive	Pre-Cleared	7–35 days
Global Quality	ISO 9001:2015 Quality Management	Certified	—
India	BIS IS 17093:2026	Pre-Cleared	7–35 days
Saudi Arabia	SASO SABER PCoC / SCoC	Ready	7–35 days
Australia / New Zealand	RCM & AS/NZS 3788	Compliant	7–35 days
Oil-Free Integrity	ISO 8573-1 Class 0	Certified	—

04
LINEUP

EXTENDED TECHNICAL DATA
Product Lineup — 22 kW to 355 kW

The complete 2026 Two-Stage PMV Oil-Injected export schedule — **16 models from 22 kW to 355 kW (30 HP to 480 HP)** — covering working pressures of 7 bar, 8 bar, 10 bar, and 13 bar. All values measured at standard reference conditions (20°C inlet, 1 bar absolute, 0% relative humidity, 55°C ambient rating).

Table A — Free Air Delivery (FAD) by Working Pressure m³/min

Model	kW	HP	Free Air Delivery — FAD (m³/min)			
			7 bar	8 bar	10 bar	13 bar
ASM-30DCV	22	30	4.2	3.9	3.4	2.8
ASM-40DCV	30	40	5.6	5.2	4.6	3.8
ASM-50DCV	37	50	7.0	6.5	5.7	4.7
ASM-60DCV	45	60	8.5	7.9	6.9	5.7
ASM-75DCV	55	75	10.5	9.8	8.5	7.0
ASM-100DCV	75	100	14.2	13.2	11.6	9.5
ASM-125DCV	90	125	17.0	15.8	13.9	11.5
ASM-150DCV	110	150	20.8	19.4	17.0	14.0
ASM-180DCV	132	180	24.8	23.2	20.3	16.8
ASM-220DCV	160	220	30.2	28.2	24.7	20.4
ASM-250DCV	185	250	34.8	32.5	28.5	23.6
ASM-300DCV	220	300	41.5	38.7	34.0	28.1
ASM-340DCV	250	340	47.2	44.0	38.6	32.0
ASM-380DCV	280	380	52.8	49.3	43.2	35.8
ASM-430DCV	315	430	59.5	55.5	48.7	40.3
ASM-480DCV	355	480	67.0	62.5	54.8	45.4
Range Span			30 → 480 HP	22 → 355 kW	4 pressure ratings	16 export models

FAD measured at 20°C inlet air, 1.013 bar absolute atmospheric pressure, 0% relative humidity, rated working pressure, 55°C ambient rating. Two-stage architecture extends efficient delivery to 13 bar where single-stage units lose volumetric efficiency. Configurable 8–16 bar on request.

Table B — Dimensions & Dry Weight Schedule L × W × H mm · kg

Model	kW	HP	Dimensions (L × W × H) — mm	Dry Weight — kg	Noise — dB(A)
ASM-30DCV	22	30	1180 × 820 × 1280	380	68
ASM-40DCV	30	40	1180 × 820 × 1280	430	69
ASM-50DCV	37	50	1320 × 980 × 1380	560	70
ASM-60DCV	45	60	1320 × 980 × 1380	610	71
ASM-75DCV	55	75	1720 × 1180 × 1520	1050	72
ASM-100DCV	75	100	1860 × 1240 × 1600	1450	73
ASM-125DCV	90	125	2160 × 1300 × 1680	1850	74
ASM-150DCV	110	150	2160 × 1300 × 1680	2150	75
Standard Equipment			IE5+ PMV direct drive · BAOSI 5:6 dual-stage air-end · IP55 enclosure · 304SS piping · inter-stage cooler · PLC HMI		

Model	kW	HP	Dimensions (L × W × H) — mm	Dry Weight — kg	Noise — dB(A)
ASM-180DCV	132	180	2620 × 1580 × 1780	2550	76
ASM-220DCV	160	220	2620 × 1580 × 1780	3100	77
ASM-250DCV	185	250	3120 × 1790 × 1900	3700	78
ASM-300DCV	220	300	3120 × 1790 × 1900	4400	79
ASM-340DCV	250	340	3260 × 2280 × 2320	5200	80
ASM-380DCV	280	380	3260 × 2280 × 2320	5800	81
ASM-430DCV	315	430	3460 × 2280 × 2420	6500	82
ASM-480DCV	355	480	3460 × 2280 × 2420	7200	83
Standard Equipment			IE5+ PMV direct drive • BAOSI 5:6 dual-stage air-end • IP55 enclosure • 304SS piping • Inter-stage cooler • PLC HMI		

Optional accessories: refrigerated dryer (-40°C PDP), 0.01 µm precision filtration, ASME air receiver, energy-management system (EMS), remote monitoring (RS485 Modbus / IoT), heat-recovery module. Maintenance interval: 2,000 hrs standard / initial service at 500 hrs. All weights are dry (un-lubricated, un-crated).

05
ROI

AUDIT & OWNERSHIP

The AirSpace ROI Audit & Zero Ransom

A verified **35% energy delta** versus fixed-speed single-stage baselines, broken down across a 7-Factor ROI formula — and backed by a **Zero Ransom** ownership policy with full software and hardware transparency. No proprietary locks. No captive-service traps. Your compressor, your terms.

35%

VERIFIED ENERGY
DELTA VS FIXED-
SPEED

7

ROI COMPOUNDING
FACTORS

12–18_{mo}

TYPICAL ENERGY-
FUNDED PAYBACK

0

PROPRIETARY LOCKS
— ZERO RANSOM

The 7-Factor ROI Formula — Why 35% Is a Floor, Not a Ceiling

01

Motor Efficiency (IE5+)

Permanent-magnet synchronous motors hit ultra-premium IE5 efficiency — no rotor slip losses, part-load efficiency stays high across the whole speed range.

05

Motor Soft-Start (No Peak Demand)

Smooth ramp-up avoids inrush current spikes that trigger peak-demand penalties on your electricity tariff.

02

"Unload Tax" Elimination

VFD control ramps to near-zero draw when demand drops — the 40–70% idle bleed of fixed-speed units is gone for good.

06

Extended Life Cycle

Demand-matched running reduces mechanical stress, heat cycling and bearing wear — longer service intervals, more years of output.

03

Pressure Stabilization

Tight ± 0.1 bar holding lets you set the target lower — every 1 bar reduction saves roughly 7% in energy.

07

Lower Maintenance

No gearbox, fewer friction surfaces and direct-drive simplicity mean ~20% lower maintenance spend year over year.

04

Leak Reduction

Running at a stabilized lower pressure cuts the volume lost through every leak, fitting and joint across the network.

 Σ **Why It Compounds**

Each factor trims a different cost line — energy, demand charges, leaks, maintenance, replacement. Stack them and the 35% headline becomes a floor, not a ceiling.

**The Zero Ransom Policy**

Unlike legacy brands that lock you into proprietary service contracts, coded spare parts, and software paywalls, AirSpace guarantees **full software and hardware transparency** — no proprietary locks, ever.

OPEN SOFTWARE

Full controller access, open parameter sets, no software ransom or paywall — your team owns the HMI.

OPEN HARDWARE

Off-the-shelf, non-coded spare parts. Serviceable by any qualified technician — no captive technician required.

OPEN DOCUMENTATION

Complete service manuals, component-by-component warranty, and audit-ready validation — transparent by default.

06

CONTACT

MANUFACTURER & DIRECT CHANNELS

Contact & Certification

AirSpace Machinery Co., Ltd. — manufacturer of high-performance industrial air compression systems. Reach our PMV & Oil-Free technical consultants directly on four regional hotlines, or request a tailored 1-page ROI Audit returned within one business day.

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TAGLINE

Helping Cut Energy Cost by 35–50% · PMV & Oil-Free Technical Consultant

Certification Portfolio

CE

European Conformity

Machinery & Low Voltage Directive
— full export compliance.

ISO 9001

Quality Management

ISO 9001:2015 certified quality
management system.

BIS

India — IS 17093

Pre-cleared BIS IS 17093:2026 for
Indian import.

SABER

Saudi SASO

SABER PCoC / SCoC ready for
Saudi Arabian market.

Request Your Tailored 1-Page ROI Audit

Send your site specs — motor power, working pressure, annual operating hours, % time unloaded — and receive a verified savings projection within one business day.

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Power On, Worry Off.

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