



Since 1979

For Unmatched Quality Performance

Highly **Reliable,**
Durable & Efficient



SCREW AIR COMPRESSOR



TOYO - For Every Compressed Air Requirement



High Quality Genuine Spare Parts

All high quality and durable spare parts are designed, manufactured and tested to meet with the most stringent international standards.



State of the Art Compressor Airend

Optimal energy efficiency and outstanding reliability is achieved from patented design third generation non-symmetric robust rotors, superior bearings and oil seal that help the compressor airend to operate with good dynamic balance, low vibration, low rotation speed and low noise level.



High Efficiency Aftercooler

The enlarged high efficiency oil and air combination aircooled aftercooler is specifically designed for South East Asia climate to assure all components work perfectly even under high ambient temperature and humidity summer season. All design data are referenced at 46°C ambient temperature.



Intelligent Electric Control Panel

The control and regulation system elaborates the pressure signals received by the sensor included inside converting them into signals that modify the free air capacity. With a correct programming it is assured a stable flow of compressed air to match the variable demand with a minimum pressure variation.

"TSCR" is capable of :

- To keep under control of all parameters included in the unit
- To modify the programmed conditions as required (within the preset limits)
- To determine maintenance requirements
- To program the stop and start of unit in accordance to the requirements

There are the electronic panel it self luminous displays to visualize the following :

- One display to indicate the operation pressure
- One display to indicate the operation temperature
- alarm messages
- state messages
- maintenance messages

There is also visible :

- start pushbutton
- delayed stop pushbutton
- emergency stop pushbutton

It is also included a programming button that allows to the user to modify the operating parameters of the compressor itself (within the pre-set limits) to adapt them to the eventual specific requirements.



Energy Saving Electric Motor

The special modified electric motor can achieve high efficiency of 95.2% that brings an unprecedented level of energy saving.



Modern Concept Suction Control System

Modern concept suction valve with automatic closure to prevent any oil escape. The control unit can automatically adjust from 60-100% according to the system air demand to effectively minimize operating cost.

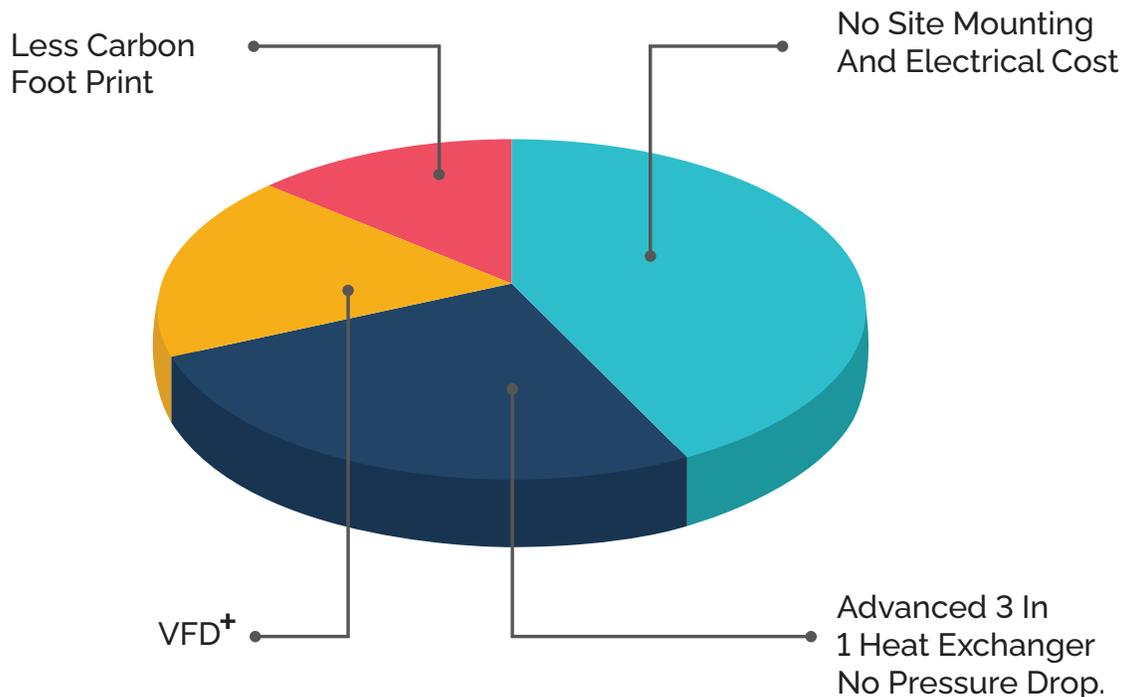
Features

- | | | | |
|---|-----------------------------|---|------------------|
|  | High Reliability |  | Easy Maintenance |
|  | Energy Efficient |  | Compact Design |
|  | Low Cost |  | Silent Work |
|  | More Free Air Deliver (FAD) | | |

Excellence in Integrated air dryer

- Foot print required is less as compressor and dryer mounted on the air tank.
- Huge money and time saved by avoiding site plumbing and electrical.
- Compressor and dryer are independent hence dryer maintenance is possible without stopping the compressor. Therefore no production losses.
- Single transport cost.
- Plug and use on arrival of the compressor.

Cost saving contributors





Micro Computer Control System

Intelligent micro computer control system. The LED can show percent temperature, working pressure, accumulative working time, malfunction, etc.

High Efficiency Motor

le3 electric motor features grade - F insulation and IP54 protection.



Magnetic Motor

Permanent magnetic motor and compressor are designed with the one shaft and by 100% transmission efficiency. Compared to normal motor the permanent magnet synchronizing.



Energy Saving

In- Built Toyo Variable Frequency Drive (VFD)⁺

Matches compressor output with demand by varying motor speed. the power consumption reduces in line with the reduction in demand. This helps in eliminating the frequent load - unload cycle there by providing saving in energy.

*available on selected models only





Quite operation

high efficiency cooling fan provides sound level low of the machine.

Spin On Three Stages Separator Air/oil

oil filters and air oil separator - user friendly from servicing point of view. the separator will remove oil panicles from the air down to a ratio of 1-2 parts per million.



Advanced Screw Air End

advance rotary screw technology, equipped with high efficiency rotary screw air end powered by efficient electric motor.

Energy Efficient combination cooler

energy efficient combination cooler provide sustainable and efficient operation in high temperature high humilfity environments.



Oil Filter

the screw spin on oil filter make servicing convenient. the filter eliminates oil impurities and other particles produced by wear and tear.

Screw Compressor Fixed Speed (Direct Drive)

TSCR DD series are built for continuous duty in very hard conditions of use. The Design of the machine have been focussed not only on power consumption, but also on maintenance and operational costs and installation ease.

The drive between the air and electric motor is carried out by means of gear loss direct coupling connection. One to one direct drive by maintenance free coupling reduces number of components needed in gear drive, increasing reliability and service life through elimination of wear & transmission loses. Low speed 2950 RPM larger air ends are more efficient than high speed air ends. A dedicated air end for any machine at any pressure in order to grant maximum performance in the complete range.



BM = BASE MOUNTED, VFD = VARIABLE FREQUENCY DRIVE COMPRESSOR
 CFD = TANK MOUNTED WITH DRYER & FILTERS (PRE & CARBON)
 VD = V.BELT DRIVEN, DD = DIRECT DRIVEN,
 7 Kg/cm² = 100 PSI = 7 bar = 0.7mpa, 35.3 CFM = 1m³/min = 1050 LPM
 1 Gallons = 3.785 liters, 1 HP = 0.75 KW

* specifications are subject to change without notification

Technical Specification

Sr No.	Model No.	Motor Power		Max Working Pressure in kg/cm ²	Free Air Deliver (CFM)	Noise dB(A)	Tank Capacity in (LTRS)	Weight (KGs)	Dimension (mm)		
		HP	KW						L	W	H
1	TSCR 10 DD	10	7.5	8 - 10 - 13	45 - 38.8 - 36	66 ± 3	300/500	400	760	850	1150
2	TSCR 15 DD	15	11	8 - 10 - 13	63 - 54 - 50		500	420	760	850	1150
3	TSCR 20 DD	20	15	8 - 10 - 13	88 - 76 - 71		500	450	1210	860	1280
4	TSCR 25 DD	25	18.5	8 - 10 - 13	125 - 108 - 100	72 ± 5	500/1000	500	1210	860	1280
5	TSCR 30 DD	30	25	8 - 10 - 13	135 - 117 - 108		500/1000	750	1510	960	1650
6	TSCR 40 DD	40	30	8 - 10 - 13	205 - 177 - 164		1000	950	1510	990	1250
7	TSCR 50 DD	50	37.5	8 - 10 - 13	254 - 220 - 203	82 ± 5	1000	1450	1850	1250	1650
8	TSCR 60 DD	60	45	8 - 10 - 13	268 - 232 - 215		1000/2000	1750	2100	1200	1600
9	TSCR 75 DD	75	55	8 - 10 - 13	339 - 293 - 271		1000/2000	1980	2100	1300	1600
10	TSCR 100 DD	100	75	8 - 10 - 13	450 - 389 - 360		2000	2500	2420	1450	1750
11	TSCR 125 DD	125	90	8 - 10 - 13	565 - 488 - 492		2000	2700	2490	1400	1950
12	TSCR 150 DD	150	100	8 - 10 - 13	698 - 582 - 539		2000	3600	2920	1800	1850

* The Dimensions & Weight Can vary as per company offering & product improvement

* The company on product improvement and reserves the right of design improvement parameters are subject to change without prior notice

Variable Screw Compressor With Induction Motor (Direct Drive)

Tank Mounted Screw Compressor

Technical Specification

Sr No.	Model No.	Motor Power		Max Working Pressure in kg/cm ²	Free Air Deliver (CFM)	Noise dB(A)	Tank Capacity in (LTRS)	Weight (KGs)	Dimension(mm)		
		HP	KW						L	W	H
1	TSCR 03 VD	3	2	8 - 10 - 13	12 - 10.3 - 9.6	60 ± 5	220	225	1220	650	950
2	TSCR 05 VD	5	3.7	8 - 10 - 13	21 - 18.14 - 16.8		220	250	1220	650	950
3	TSCR 07 VD	7.5	5.5	8 - 10 - 13	25 - 21.6 - 20		220	270	650	800	1050
4	TSCR 10 VD	10	7.5	8 - 10 - 13	45 - 38.8 - 36	66 ± 3	200	400	760	850	1150
5	TSCR 15 VD	15	11	8 - 10 - 13	63 - 54 - 50		500	420	760	850	1150
6	TSCR 20 VD	20	15	8 - 10 - 13	88 - 76 - 71		500	450	1210	860	1280

Features

- 2 Years Warranty for screw Airend.
- Provides Zero transmission losses with low RPM Screw Element
- All Parts are designed with universal design code/standard
- No Hose Pipe or rubber parts in system which ensures peak reliability & low down time
- Oil cooler is designed for use ambient temp which is suitable for indian climate circumstances



TM = TANK MOUNTED, VSD = VARIABLE SPEED DRIVE COMPRESSOR
 CFD = TANK MOUNTED WITH DRYER & FILTERS (PRE & CARBON)
 VD = V BELT DRIVEN, DD = DIRECT DRIVEN, PM = PERMANENT DRIVEN COMPRESSOR,
 7 Kg/cm² = 100 PSI = 7 bar = 0.7mpa, 35.3 CFM = 1m³/min = 1050 LPM
 1 Gallons = 3.785 liters, 1 HP = 0.75 KW

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General Arrangement



Energy Saving VFD⁺ Screw Air Compressor



The TOYO TSCR VFD⁺ Variable Frequency Drive Series is designed as a total concept, rather than by adding a frequency converter to an existing machine, it is tightly integrated and mechanically tested and has low vibration at high performance.

Main benefits are a highly stable air net pressure, low starting currents, a total absence of peaks and a high power factor.

By varying the speed of the drive motor, the TOYO Variable Frequency Drive VFD⁺ Series compressor output closely follows the air demand by covering a wide range, without load-unload switching. The result is a constant pressure, without fluctuations, which greatly benefits to your overall process stability.

Furthermore, a grate energy saving between 20% and 35% is achieved during partial load. The reduction in energy cost a typical life cycle might even surpass the initial investment cost of the screw compressor. In other words, the saving realized by VFD⁺ can pay for the entire machine.

Toyo screw compressor is designed after many experiences for years in compressor market. The main purpose while designing Toyo Air compressor was "easy maintenance" which means that compressor will enable everyone to reach each component easily Our design with full of engineering advantages allows lower prices and higher performances According to the operating principle of Rotary screw compressor, they need periodic maintenance to carry on its performance for years.

Advantages :

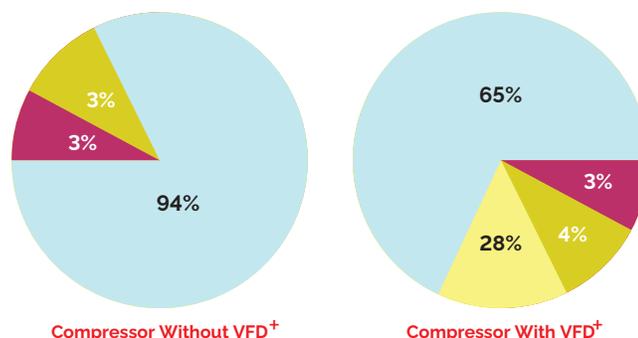
Electrical

- Low Starting Current
- High Efficiency
- Improved Power Factor
- Reduced Maximum Demand

Mechanical:

- Minimum Maintenance
- Smooth Start
- Smooth Control

10 Year Life Cycle Cost



Electricity Cost VFD⁺ Saving
Equipment Cost Maintenance Cost



Refrigeration Air Dryer

Principle Of Operation

Warm compressed air enters the Air / Air Heat Exchanger where it is pre-cooled by outgoing cold dry air. The pre-cooled air enters the Air to Freon Heat Exchanger where it is cooled down to +30°C. At this temperature, water condenses into liquid droplets, which are removed from the air stream by a very efficient Demister and automatically discharged by an Automatic Drain Valve. The cold dry compressed air passes back through the secondary side of the Air Heat Exchanger where it is reheated by the incoming warm air.

Refrigerated Air Dryer



Sr No.	Model No.	Power Consumption in KW		Max Working Pressure in Kg/cm ²	Flow (sCFM)	END Connection
		R 134a	R 407c			
1	RED 20	0.32	-	16	20	1" BSP
2	RED 35	0.32	-	16	35	1" BSP
3	RED 45	0.34	-	16	45	1" BSP
4	RED 50	0.36	-	16	50	1" BSP
5	RED 60	0.36	-	16	60	1" BSP
6	RED 75	0.36	-	16	75	1" BSP
7	RED 80	0.85	-	16	80	1" BSP
8	RED 100	0.85	-	16	100	1" BSP
9	RED 130	0.85	-	16	130	1" BSP
10	RED 150	1.02	-	16	150	1½" BSP
11	RED 200	2.08	2.34	16	200	1½" BSP
12	RED 250	2.08	2.34	16	250	1½" BSP
13	RED 300	2.40	2.40	14	300	2" BSP
14	RED 400	2.50	2.30	14	400	2" BSP
15	RED 500	2.50	2.30	14	500	2" BSP

Features

- Environment Friendly
- Power saving
- More reliability
- Low pressure drop
- Easy to installation
- Consistency dew point
- Reduced maintenance

Note :

*Compressors mounted on horizontal tank and dryer as option

*Due to continuous engineering improvements, the specifications are subject to change without prior notice

*Product images displayed in this brochure are only representative and may not exactly match the actual product

TOYO Accessories



Moisture Separator

- capacity : 100 - 365 cfm
- working pressure : 16 bar g



In-Line Filters

- capacity : 19-1200 cfm
- working pressure : 7-60 bar
- filtration range : 1-0.003 microns



Refrigeration Air Dryer

- capacity: 10 - 2000 cfm
- working pressure : 7-60 bar
- filtration range : +3C. PDP



Auto Drain Valves

(Time controlled & zero loss)

- capacity : 50- 2000 cfm
- working pressure : 16 bar
- media : condensate

Desiccant air dryer

- capacity 10 - 45 cfm
- working pressure : 16 bar g



Air Receiver

- capacity : 250 - 10000 cfm
- working pressure : 7-12.5 bar
- code of construction : ASME
- sec. VIII Div. I or IS 2825

Our Product Range



Reciprocating Type
Air Compressor



High Pressure
Air Compressor



Refrigerated
Air Dryer



Oil Free Air
Compressor



Portable Air
Compressor



Service Pump

Vision & Mission

Company Is Continuously Working On Compressed Air Technology Beyond Innovation By Giving "More Power Saving", "Intelligence Compressor Controller", "Smart Synchronization System", "Zero Break Downs", "Local And Remote Operated System"



Milestone

We launched the Permanent Magnetic Motor technology in screw compressors with variable frequency drive which led to the roll out of new technology throughout the industries across india this technology has brought 30% power saving in compressed air systems





An Iso 9001 : 2015 Company



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