# 7 series and 65 models

F.R.L.

F.R. F (Filtr)

R (Reg)

Drain Separ

Press SW

Res press exh valve

SlowStart

Anti-bac/Bacremove Filt Film

Resist FR Oil-ProhR

Press FR No Cu/ PTFE FRL

Outdrs FRL Adapter

Press

Gauge

CompFRL

LgFRL

**PrecsR** 

VacF/R

Clean FR

ElecPneuR

AirBoost

Speed Ctrl

Silncr

CheckV/

Fit/Tube

Nozzle

Air Unit
PrecsCompn
Electro
Press SW

ContactSW

AirSens PresSW

Air Flo

Sens/Ctrl WaterRiSens TotAirSys (Total Air) TotAirSys (Gamma) Gas generator RefrDry DesicDry

MainFiltr Dischrg

**Ending** 

other

# Select the best suited model for your application.

#### **Selection guide MAP** 25°C Inlet air temperature Ambient temperature: 25°C Outlet flow rate $\ell$ /min (ANR) Compressor rated output (kW) : 0.7 MPa Inlet air pressure 75 10000 55 37 5000 22 15 11 SDM4000 Large flow rate 1000 7.5 Medium size compressor Compatible up to 75 kW 5.5 500 3.7 SU400E-W/SD400E-W Low dew point SU300E-W/SD300E-W Atmospheric dew point 1.5 SU400D-W/SD400D-W Compatible down to -60°C SU300D-W/SD300D-W SU3000-W/SD4000-W 0.75 100 SD3000/SD4000 Compact general purpose Purge rate 20% (dew point -20°C) 50 Focused on initial costs Compact low purge Purge rate 10% (dew point -15°C) Focused on operation costs 10

Compact low purge		Compact general purpose		Low dew point		Large flow rate
E Series (purge rate 10%)		D Series (purge rate 20%)				Large now rate
SU300E-W/SU400E-W	SD300E-W/SD400E-W	SU300D-W/SU400D-W	SD300D-W/SD400D-W	SU3000-W/SU4000-W	SD3000/SD4000	SDM4000

-40

-60

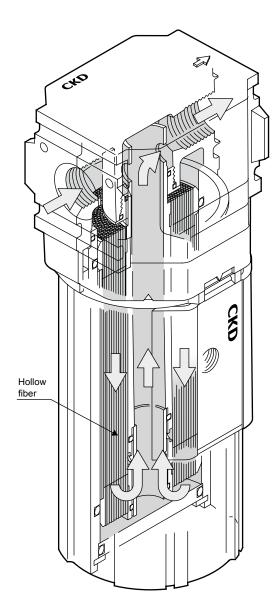
Atmospheric dew point (°C)

-15

-20

The innovative super dryer series is a high-tech dryer that incorporates a high polymer membrane.

Unprecedented ease of use, long service life, and high reliability are realized.



#### Pursuing ease of use

#### Handy preassembled unit

Super dryer (High polymer membrane air dryer) with integrated pre-filter, etc., is available. Easily used by just connecting directly to the pneumatic source.

#### Modular design

CKD original modular concept allows easy connections with CKD clean air units, reduces design and piping hours and enables systems to be upgraded easily.

#### Amenity

The unpleasant effects of conventional air dryers, such as vibration, heat discharge, power source noise, impact noise, and dust generation, have been eliminated.

#### ■ No power supply needed

Electricity is not required, so expertise in electricity is not required when installing the dryer. The dryer can be installed anywhere including explosion-proof areas with different voltages.

#### ■ No more problems

There are no mechanical moving parts, so no need for concern about unexpected failures. Clean dry air is stably supplied for long periods of time.

#### Diverse series to match applications

#### Low purge Purge rate 10%

Reduces operation costs through energy-saving moisture removal with an atmospheric dew point of -15°C and a purge ratio of 10%. [E Series]

### Low dew point Atmospheric dew point -60°C

Clean ultra dry air can be supplied easily and stably. 13000 and 4000 Series

#### ■ Large flow rate Compatible with 75 kW compressor

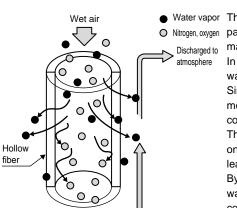
Large flow rate is achieved with a polymer separation membrane.

In addition, compared to suction air dryers, this unit is very compact and slim at 1/3 of installation area and 1/6 of the occupied volume of our conventional products. [SDM Series]

#### Compatible with medium pressure Max. working pressure 1.5 MPa

Available with max. working pressure of 1.5 MPa and a wide range of applications. [SD3000/4000 Series, SDM Series]

## Principle of dehumidification



Water vapor
 Nitrogen, oxygen
 Discharged to
 Nitrogen oxygen
 Discharged to

The gaseous molecules can freely pass through the high polymer material, but the ease of passage varies widely according to the mutual properties of the gas and the high polymer material being used.

In order to remove water vapor only, the super dryer uses a high polymer material which allows water vapor, but not nitrogen or oxygen, to pass through easily.

Since the concentration of each gas is high inside the hollow fibers of this material, gases try to move toward the outside of the hollow fibers where concentration is lower when fed with moist compressed air.

The hollow fibers are made of material that allows water vapor to pass through easily, so that only water vapor moves toward the outside of the hollow fibers. Moist air supplied from the inlet leaves the outlet as dry air.

By having part of the outlet's dry air flow toward the outside of the hollow fibers as purge air, water vapor moved to the outside is quickly discharged into the atmosphere. This keeps the concentration of water vapor on the outside of the hollow fibers low, enabling continuous dehumidification.

Read the precautions on pages 1832 and 1833 before use.

F.R.L. F.R.

F (Filtr)

R (Reg)

L (Lub) Drain

Drain Separ Mech Press SW Res press

exh valve SlowStart

remove Filt
Film
Resist FR

Oil-ProhR

Med Press FR No Cu/ PTFE FRL

Outdrs FRL
Adapter
Joiner

Press Gauge CompFRL

LgFRL PrecsR

VacF/R Clean FR

ElecPneuR

AirBoost Speed Ctrl

Silner

CheckV/ other Fit/Tube

Nozzle

Air Unit
PrecsCompn

Electro Press SW ContactSW

AirSens PresSW

Cool
Air Flo
Sens/Ctrl

WaterRtSens
TotAirSys
(Total Air)

(Total Air)
TotAirSys
(Gamma)
Gas

generator RefrDry

DesicDry

HiPolymDry

MainFiltr Dischrg etc

Ending