New Simple Control
For Easy Training and Use

Setup, pre-drying, clean-out, and maintenance can all take place without stopping valuable process machine time. No need to climb on the machine. Mobile drying and conveying systems eliminate the need for machine-mounted hoppers by placing all components on a safe, convenient cart.

Available with a 4-inch or 7-inch color touch screen, the user experience has been improved to make these dryers smarter, more intuitive, and easier to learn and use. This makes the Carousel Plus dryer perfect for existing or new operators. Designed to work seamlessly with Conair's SmartServices®, these dryers prove that data is king. With remote trouble shooting, process validation, and total machine control just a click away, this dryer is literally at your fingertips wherever you are.

Carousel Plus dryers from Conair - always ahead of the curve.

Model dX-25

Easy on-boarding and pleasant every day use by any operator

These Carousel Plus™ dX models are small enough to be used beside the machine, and mobile - so you can move them where you need them.

dX units feature true closed-loop drying and conveying technology to eliminate moisture that can cause defects in parts. You can dry at temperatures up to 375°F {191°C} and at throughput rates of 10 to more than 100 pounds per hour {4.3 to 45.4 kg/hr}. Solid state heater relays are used for reliability.

All Carousel Plus Dryers use molecular sieve desiccant that is bonded into a fiberglass substrate and formed into a continuously rotating wheel. The result is rock steady drying temperatures and dewpoint levels, critical for processing moisture and temperature sensitive material. This tried-and-true system provides maximum uptime with minimal energy usage.

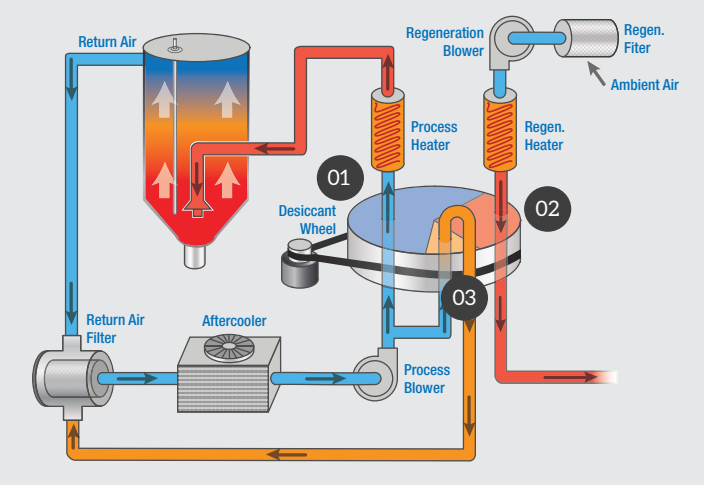
The optional air-to-air aftercooler eliminates the need for cooling water, saving additional installation and operation costs, and making the dX even more mobile.

- **Pleasant user experience with a simple-to-use touchscreen control**
  The DC-B control platform maximizes user confidence. The 4-inch "Plus", or 7-inch "Premium" touchscreen control has new intuitive design and navigation. Training new operators is easy and quick. Even novice operators feel comfortable. The color touch screens feature detailed trending, auto start, password protection and recipe control.
- **Closed-loop drying and optional included conveying system**
  Each dryer uses a 2-blower closed-loop drying system which makes them ultra consistent and efficient, no matter what the location or time of year. The conveying option adds an additional blower, just for conveying material. The dX includes a water-cooled after cooler as standard, providing drying temperatures from 150°F - 375°F.
- **No-downtime material changes**
  One dX at the processing machine, while another pre-dries material for the next run.
- **Maximum uptime, maximum reliability, smaller footprint**
  With significantly reduced part count, easy access and less wear, you can expect many years of trouble-free operation. There are no indexing desiccant beds, no complex air valves, and no loose desiccant beads. The desiccant wheel is solid, and continuously rotating. Start and stop timers allow you to pre-dry resin, so it's ready when needed.
- **Precise, adjustable dewpoint control**
  Included on all Carousel Plus Dryers, Dewpoint Control allows the system to adjust - in real time - to changing incoming moisture of the material while holding a user selected dew point value. This insures a rock solid dew point at the lowest energy usage.

How it Works

The core of the Carousel Plus Dryer is the Munters® unique fluted desiccant rotor, which is made of molecular sieve desiccant. The molecular sieve has been grown into the rotor's porous fiberglass substrate, preventing desiccant break down and dusting over time.

The desiccant rotor revolves slowly at the rate of 12 revolutions per hour passing through three cycles with each revolution.



The Benefits

- The high airflow across the rotor surface area produces a resin-drying low dewpoint within five minutes of start-up and offers multi-year media life with virtually no maintenance.
- The continuously revolving rotor provides rock steady temperature and dewpoint control - no bed shift heat bumps.
- The rotor technology minimizes energy consumption by reducing the structural mass. Less structural mass to heat means less energy wasted.
- The fiberglass wheel does not break down over time, so regular desiccant changes are not required.

01 The dry air is dehumidified in the adsorption cycle, capturing and removing moisture from the drying air stream.

02 The desiccant passes into the high temperature regeneration cycle; absorbed moisture is heated and purged out of the desiccant to the atmosphere.

03 The desiccant is then advanced to the post regeneration cooling cycle and cooled with closed loop dry air. This unique closed loop cooling technology eliminating moisture that can cause defects in parts.

Recommended Throughputs (60 Hz chart)*			For 50 Hz Application, Reduce Rates by 17%						
Material	Drying Temp / °F {°C}	Drying Time / Hr †	Initial Moisture	Bulk Density ‡	Model Throughput Rate§ / lb/hr				
					dX15**	dX25**	dX50**	dX75**	dX100**
ABS	180-190 {82-88}	4	0.40	40 {0.64}	15	25	50	75	100
Acetal	180-230 {82-110}	4	0.60	40 {0.64}	13	19	37	55	75
Acrylic	170-180 {77-82}	4	0.30	40 {0.64}	17	29	59	86	116
Nylon	160-180 {71-82}	6	0.40	40 {0.64}	16	27	54	80	108
PBT	210-260 {99-127}	4	0.30	45 {0.72}	17	28	56	83	112
PC	250 {121}	4	0.30	40 {0.64}	16	26	52	77	104
PE (HD/LP) w/40% black	170 {77}	5	-	26-34 {0.42-0.54}	15	25	50	75	100
PET virgin bottle grade	300-350 {144-177}	6	0.30	50 {0.80}	15	25	50	75	100
PETG	140-150 {60-66}	6	0.30	50 {0.80}	16	27	54	80	108
Polysulfone	200-275 {93-135}	4	0.50	50 {0.80}	8	16	32	46	62
Polyurethane	180-210 {82-99}	4	0.50	40 {0.64}	9	17	35	51	70
SAN	160-180 {71-82}	2-4	0.30	45 {0.72}	20	31	63	94	125

Select the right dryer for your application

1. **Identify the resin and throughput rate.** Use the chart to quickly select the correct dryer model for your throughput rate.
2. **Multiply the suggested drying time by your throughput rate to determine the hopper size.** Refer to Conair drying hopper specifications, or contact a Conair representative to determine the correct hopper for your application.
3. **Select the dryer model and options to suit your application.** Carousel PlusTM D Series models can be used for individual station drying applications.

Application Notes

* Material throughputs are based on typical virgin material with initial moisture content as supplied by the material suppliers. Consult Conair if specific initial and final moisture content of your material are known for your application.

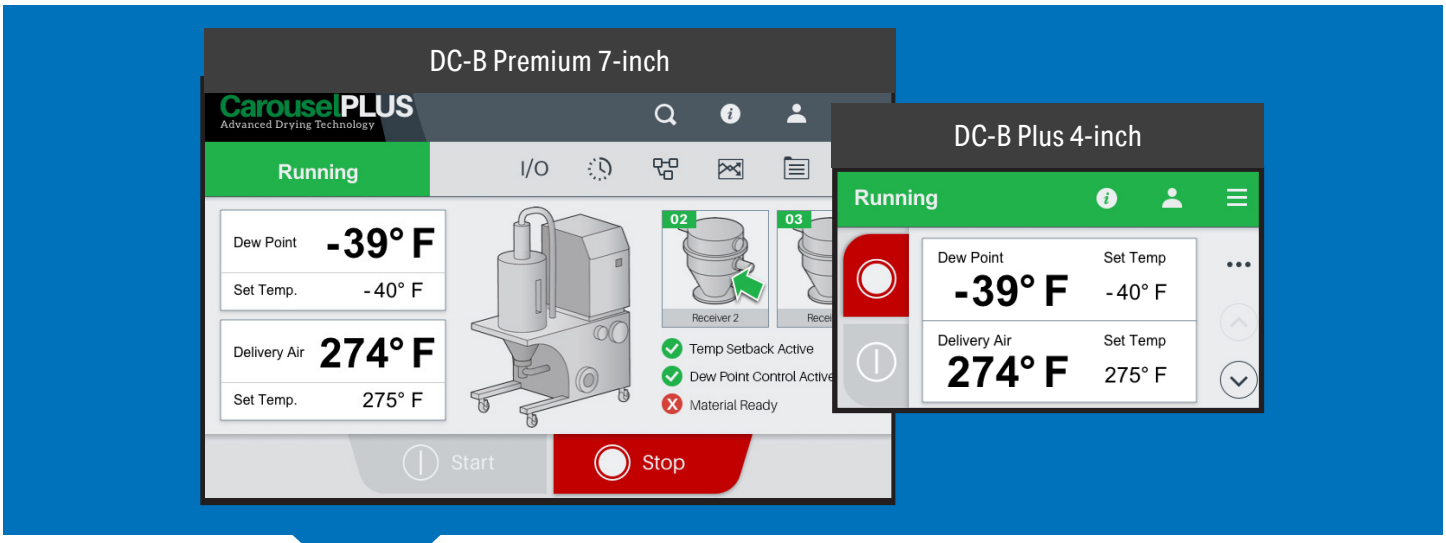
† The parameters of drying temperature and time may vary depending upon the type, grade and manufacturer of the material being processed. Consult your material supplier for their precise recommendations.

‡ Unit of measurement for bulk density is lb/ft3 {g/cm3}. Bulk density listed is the nominal weight for typical pellets. The bulk density may vary somewhat depending upon the size and shape of the pellets. The bulk density of regrind may vary widely depending upon the size and the shape of the flake. Be sure to consider the bulk density of the material when selecting and the drying time desired.

§ Throughputs will vary by type of material. Consult Conair concerning throughputs for materials that are not listed here.

** All Conair Dryers are equipped with an aftercooler as standard. The aftercooler reduces the temperature of the return air from the drying hopper, improving the efficiency of the desiccant. If using the water-cooled aftercooler option, the aftercooler must be connected to supply water with the proper flow rate and temperature.

DC-B Control Features and Options



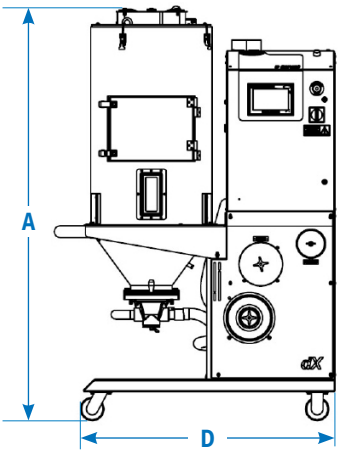
Control	DC-B Plus	DC-B Premium
Standard		
Processor	PLC	PLC
Display / HMI screen	4-inch color	7-inch color
Real-time data trending	●	●
Auto start/stop (7 days)	●	●
English / Metric units	●	●
Multi-level password protection	●	●
Temperature Setback (manual/auto)	○	●
Dewpoint monitor and control	●	●
Energy Usage Monitor	●	●
Audible and Visual alarms	●	●
Predictive maintenance	●	●
Recipe library control	●	●
On-screen help	●	●
VNC viewer	●	●
Wheel rotation sensor	●	●
Available options		
Drying Monitor w/ Material Ready		○
Vacuum conveying control	○	○
Number of vacuum receivers	1	2
Optional inputs (fill)	0	2
Optional outputs (ratio/purge)	0	1
Airflow measurement		○
Process filter check		○
Water flow control		○
Water flow on/off	○	
UL 508A panel design	○	○
Volatile trap (water-cooled only)	○	○
Precooler (to run below 150°F)	○	○
Communications (OPC-UA or Modbus TCP/IP)	○	○
Air-cooled aftercooler	○	○

● Standard ○ Option

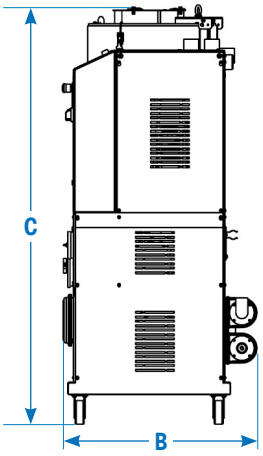
Feature Descriptions (see chart for standard vs options)

- **Audible and visual alarm** - A flashing alarm beacon and horn.
- **Temperature setback** - Automatically reduces the drying temperature to a lower standby mode when the machine throughput is reduced or stopped.
- **Dewpoint monitor** - Monitor dryer performance with a digital readout.
- **Dewpoint control** - Allows the dryer to maintain an operator-selected dewpoint and adjust automatically to changing moisture content.
- **Drying Monitor™** - Save time and money by not using improperly dried material. Drying Monitor automatically monitors the heat profile in the hopper, using a 6-zone temperature probe, preventing over or under drying material. An alarm will alert operators of issues.
- **Material ready** - "Material ready" is a feature that alerts the operator once the material is properly dried. No more bad parts from improper drying when the resin wasn't ready!
- **On-screen help** - A simple click of the contextual help button gives information to the operator about functions and setpoints for each screen/button. The perfect tutorial for new operators.
- **Preventive maintenance** - Recommended maintenance intervals are programmed into the control, so you'll never wonder if it's time to perform maintenance, or forget about key tasks. This is just another way to prevent unplanned downtime.
- **Communications** - Allows the dryer to talk with Conair's SmartServices cloud or your own network via Modbus TCP/IP or OPC-UA communication protocols. Capabilities include viewing data in real time, pushing commands to the dryer, or controlling the system remotely using the built-in VNC virtual connection.
- **Air-to-air aftercooler** - no cooling water hook-up is required for operation. An aftercooler is used to reduce the temperature of the return air from the hopper, which improves the efficiency of the desiccant. Conair dryers can dry between 150-375°F {65.6-190.5°C} as standard with the water or air-cooled after cooling.
- **Process filter check** - A clogged filter will not only decrease dryer performance, it can cause bad end parts, damage the desiccant wheel, pose a safety hazard, or result in unscheduled downtime and increased repair costs. A differential pressure sensor across the filter lets you know when it's ready for a change.

EH Specifications

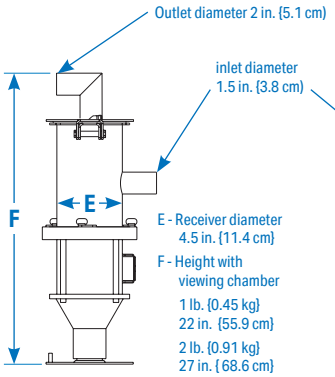


Front view

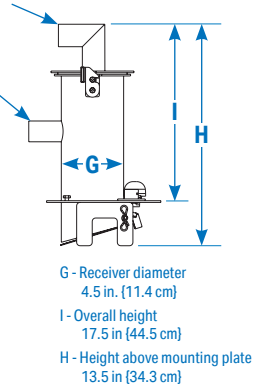


Side view

TLR Tube Loader (machine loader)

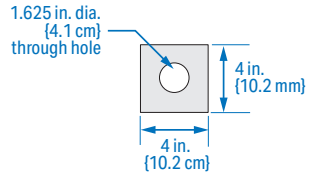


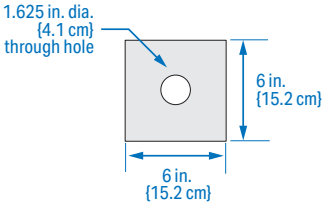
TLR Tube Loader (hopper loader)



Models	dX15	dX25	dX50	dX75	dX100
Standard hopper capacity @ 35 lb/ft lb (kg)	52.5 (23.8) 1.5 cu. ft.	122.5 (55.6) 3.5 cu. ft.	175 (79.4) 5 cu. ft.	245 (111) 7 cu. ft.	385 (174.6) 11 cu. ft.
Alternate hopper capacity @ 35 lb/ft lb (kg)	35 (15.9) 1 cu. ft.	87.5 (39.7) 2.5 cu. ft.	122.5 (55.6) 3.5 cu. ft.	385 (174.6) 11 cu. ft.	490 (222.3) 14 cu. ft.
Optional hopper loading	TLR				
Optional machine loading	TLR with 1 lb. glass			TLR with 2 lb. glass	
Performance characteristics (with full hopper)					
Drying temperature	150° - 375°F (66 - 191°C)				
Dewpoint	-40°F (-40°C)				
Standard conveying distance	8 ft (2.44 m) vertical; 6 ft (1.83 m) horizontal				
Long distance conveying option	15 ft (4.57 m) vertical; 50 ft (15.24 m) horizontal				
Dimensions inches (cm)					
A - Height top of dryer	65.1 (165.4)		65.9 (167.4)		
B - Overall width	27.4 (69.5)		32.5 (82.6)		
C - Height to top of hopper (standard)	63.3 (160.8)	70.1 (178.1)	78.3 (198.8)	89.1 (226.3)	88.3 (224.3)
C - Height to top of hopper (optional)	52.7 (133.9)	61 (154.9)	75.6 (192.1)	88.3 (224.3)	101.4 (257.5)
D - Depth	42.9 (109)		51.1 (132.3)		
Drying outlet/inlet tube size OD	2.5 (6.35)				
Approximate weight lbs (kg)					
Standard dryer installed	520 (235.9)	560 (254)	790 (358.3)	820 (371.9)	880 (399.2)
Standard dryer shipping	700 (318)	740 (335.7)	990 (449.1)	1020 (463)	1080 (490)
Voltage - Full load amps†† (standard/long conveying distance)					
208 V/3 phase/60 Hz	18.2 / 22.2		22.6 / 26.6	29.1 / 33.1	N/A
230 V/3 phase/60 Hz	16.4 / 20.0		20.5 / 24.1	26.3 / 29.9	27.5 / 31.1
400 V/3 phase/50 Hz*	9.6 / 11.6		12.0 / 14.0	15.3 / 17.3	15.9 / 17.9
460 V/3 phase/60 Hz	8.1 / 9.9		10.1 / 11.9	13.0 / 14.8	13.6 / 15.4
575 V/3 phase/60 Hz	6.4 / 8.0		8.7 / 10.0	10.8 / 12.1	11.1 / 12.4
Water-cooled requirements (for aftercooler or precooler)‡§					
Recommended temperature**	45° - 85°F (7.2° - 29.4°C)				
Water flow gal./min. (liters/min.)	1 (4.6)		2 (9.1)		
Water connections NPT	3/4 inch NPT				

Loader Base Plates





Application Notes

All dryers are supplied with an aftercooler as standard. The aftercooler reduces the temperature of the return air from the drying hopper, improving the efficiency of the desiccant. If using the water-cooled aftercooler option, the aftercooler must be connected to supply water with the proper flow rate and temperature.

When to use additional filtration

The standard return air cartridge filter is sized for the airflow of each dryer model and is suited for most applications. You should consider adding an optional dust collector and/or volatile trap if:

- The material contains excessive fines. An additional dust collector or cyclone will extend time between filter cleaning.
- The material produces volatiles during drying which condense into a waxy or oily residue. A volatile trap will help to protect the desiccant.

Specification Notes

* Dryers running at 50 Hz will have 17% less airflow, and a 17% reduction in material throughput.

† Total kW listed at a process setpoint of 250°F (121°C) and a regeneration temperature of 350°F (177°C).

‡ When drying below 150°F (66°C) a precooler is required.

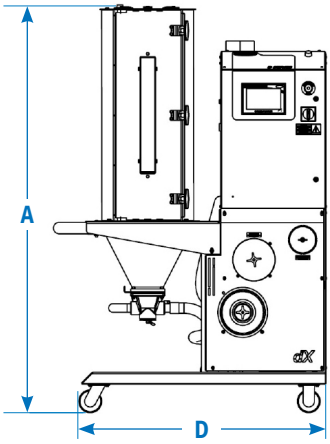
§ When ambient temperature is above 110°F (43°C) and drying above 375°F (191°C) a water-cooled aftercooler is required.

** Temperatures above or below the recommended levels may affect dryer performance. Tower, chiller, or municipal water sources can be used.

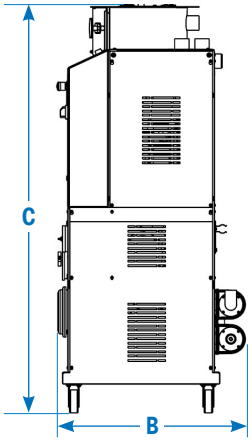
†† FLA data for reference purposes only. Does not include any options or accessories on equipment. For full FLA detail for power circuit design of specific machines and systems, refer to the electrical diagrams of the equipment order and the nameplate applied to the machine.

Specifications may change without notice. Consult a Conair representative for the most current information.

RWH Specifications

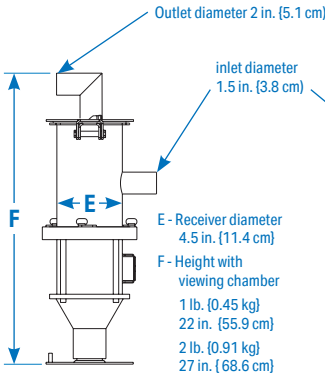


Front view

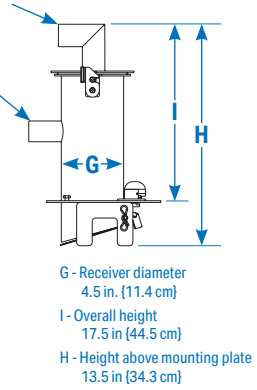


Side view

TLR Tube Loader (machine loader)



TLR Tube Loader (hopper loader)



Models	dX15	dX25	dX50	dX75	dX100
Standard hopper capacity @ 35 lb/ft lb {kg}	70 {32} 2 cu. ft.	105 {48} 3 cu. ft.	210 {95} 6 cu. ft.	315 {143} 9 cu. ft.	420 {191} 12 cu. ft.
Alternate hopper capacity @ 35 lb/ft lb {kg}	52.5 {50} 1.5 cu. ft.	140 {64} 4 cu. ft.	140 {63.5} 4 cu. ft.	420 {191} 12 cu. ft.	630 {286} 18 cu. ft.
Optional hopper loading	TLR				
Optional machine loading	TLR with 1 lb. glass			TLR with 2 lb. glass	
Performance characteristics (with full hopper)					
Drying temperature	150° - 375°F {66 - 191°C}				
Dewpoint	-40°F {-40°C}				
Standard conveying distance	8 ft {2.44 m} vertical; 6 ft {1.83 m} horizontal				
Long distance conveying option	15 ft {4.57 m} vertical; 50 ft {15.24 m} horizontal				
Dimensions inches {cm}					
A - Height top of dryer	65.1 {165.4}		65.9 {167.4}		
B - Overall width	27.4 {69.5}		32.5 {82.6}		
C - Height to top of hopper (standard)	63.3 {160.8}	70.1 {178.1}	78.3 {198.8}	89.1 {226.3}	88.3 {224.3}
C - Height to top of hopper (optional)	52.7 {133.9}	61 {154.9}	75.6 {192.1}	88.3 {224.3}	101.4 {257.5}
D - Depth	42.9 {109}		51.1 {132.3}		
Drying outlet/inlet tube size OD	2.5 {6.35}				
Approximate weight lbs {kg}					
Standard dryer installed	500 {226.8}	540 {245}	810 {367.4}	850 {385.6}	880 {399.2}
Standard dryer shipping	640 {290.3}	680 {308.4}	1010 {458}	1050 {476}	1080 {490}
Voltage - Full load amps†† (standard/long conveying distance)					
208 V/3 phase/60 Hz	18.2 / 22.2		22.6 / 26.6	29.1 / 33.1	N/A
230 V/3 phase/60 Hz	16.4 / 20.0		20.5 / 24.1	26.3 / 29.9	27.5 / 31.1
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575 V/3 phase/60 Hz	6.4 / 8.0		8.7 / 10.0	10.8 / 12.1	11.1 / 12.4
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Water flow gal./min. {liters/min.}	1 {4.6}		2 {9.1}		
Water connections NPT	3/4 inch NPT				

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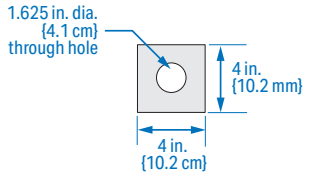

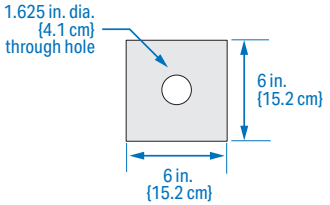

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