



INDEC INDIRECT EVAPORATIVE COOLING AT WODONGA SPORTS AND LEISURE CENTRE

PROJECT SCOPE

The Wodonga Council needed to review the cooling function of two of its basketball stadiums:

1. The existing evaporative cooling units were ineffective and needed to be replaced.
2. The stadiums were to be used for functions that required a superior level of cooling to the existing evaporative system.
3. Power supply was not adequate for a refrigerated air conditioning system.
4. Wodonga traditionally has a dry climate with high ambient dry bulb temperatures and lower humidity and is very suitable for indirect evaporative cooling.



INDEC UNITS

The Wodonga Council chose 4 INDEC units manufactured by Armcor Air Solutions in Melbourne to be installed in the basketball stadium. The contractor was BSA Group who completed the full installation of the cooling system.

Project includes:

- 2 off 12000 l/sec units (INDEC12000P3)
- 2 off 15000 l/sec units (INDEC15000P3)
- High Efficiency EC plug fans
- UV-LIGHT Water filtration
- Dump cycle for the internal water system
- Internally located 50mm panel air filtration.



PERFORMANCE DATA

The installation completed by BSA Group and the results have been outstanding. The INDEC units are operating effectively. The Sports and Leisure Center now has a full fresh air, energy efficient cooling system with reduced operational expenditure where both indoor comfort and outdoor air quality are important.

Below are results of our testing at the property:

Test Results Day 1

Date tested:	16/01/2021
Ambient dry bulb temperature:	32c
Ambient humidity:	28%
Air off temperature:	16.0c



Test results Day 2

Date tested:	26/02/2021
Ambient dry bulb temperature:	28c
Ambient humidity:	30%
Air off temperature:	13.7c



RUNNING COST COMPARISON FOR EACH UNIT

INDEC12000P3 12000 l/sec

COP	17.1
Input power	13.0 Kw
INDEC Run Cost	\$ 4.55c per hour
Refrigerated A/C	222KW compressor capacity required
Refrigerated Run Cost	\$25.90 per hour

INDEC15000P3 15000 l/sec

COP	14.88
Input power	20.16Kw
INDEC Run Cost	\$7.06 per hour
Refrigerated A/C	300KW compressor capacity required
Refrigerated Run Cost	\$35.00 per hour

Fresh Air Indoors

For more information

W: armcor.com.au

E: sales@armcor.com.au

P: (03) 8301 9200

109-111 Northcorp Blvd
Broadmeadows Vic 3047

armcor
air solutions