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SPA PLANTS EMISSIONS COMPARISON

1x 55KW/ 320 BAR, 1x 30KW/ 210 BAR, 1x 22KW/ 210 BAR	55	10.615	14.85
	30	5.79	8.1
	22	4.246	5.94
100MM CENTRIFUGAL - 4KW MOTOR - C/W LOOSE SILENCER	4	0.772	1.08
150MM CENTRIFUGAL - 18.5KW MOTOR - SUPER-SILENCED	18.5	3.5705	4.995
500MM KORFMANN 2-STAGE 2X ESN 5-75 - 2X 7.5KW MOTOR - ON SKID BAS	15	2.895	4.05
610MM AXIAL - WOODS 24K - 11KW MOTOR - STANDARD UNIT IN FRAME	11	2.123	2.97
610MM AXIAL - B40 - 18.5KW MOTOR - STANDARD UNIT IN FRAME	18.5	3.5705	4.995
610MM AXIAL - B40 - 18.5KW MOTOR - SUPER SILENCED	18.5	3.5705	4.995
610MM CENTRIFUGAL - C40 - 18.5KW MOTOR - SUPER SILENCED	18.5	3.5705	4.995
630MM EPIROC 1-STAGE AVH63-18 18KW MOTOR	18	3.474	4.86
630MM COGEMACOUSTIC 1-STAGE 11KW MOTOR	11	2.123	2.97
700MM AXIAL - KORFMANN 1-STAGE ESN 7-220 - 22KW MOTOR	22	4.246	5.94
700MM AXIAL - KORFMANN 2-STAGE/ 2X 30KW MOTOR (2X ESN7-300) - SKID	60	11.58	16.2
710MM AXIAL - WOODS 71JM - 27KW MOTOR	27	5.211	7.29
800MM AXIAL FAN - 5.5KW/ 9.45M³/SEC LOW PRESSURE 'BLOWER' FAN	5.5	1.0615	1.485
900MM KORFMANN 1-STAGE ESN 9-450 - 45KW MOTOR	45	8.685	12.15
900MM KORFMANN 1-STAGE ESN 9-550 - 55KW MOTOR	55	10.615	14.85
1000MM ATLAS COPCO 1-STAGE AVH100-55 55KW MOTOR	55	10.615	14.85
1000MM ZITRON JET FAN - 27KW/ 30KW MOTOR	30	5.79	8.1
1000MM M&Y JET FAN - 34KW MOTOR	34	6.562	9.18
1066MM ENGART 42B JET FAN - 22KW MOTOR	22	4.246	5.94
1120MM COGEMACOUSTIC JET FAN (1/2D SKID MOUNTED) - 22KW MOTOR	22	4.246	5.94
1220MM M&Y 48G4P - 60KW MOTOR	60	11.58	16.2
1220MM WOODS 48J - 64KW MOTOR	64	12.352	17.28
1220MM - WOODS 1220JM - 55KW MOTOR	55	10.615	14.85
1250MM WOODS JET FAN (1/2-D SKID MOUNTED) -15KW MOTOR	15	2.895	4.05
1524MM M&Y 60G.1/4 (1/2-D SKID MOUNTED) - 14KW MOTOR	14	2.702	3.78
1524MM M&Y 60G (1-D FRAMED) - 30/36KW MOTOR	30	5.79	8.1
	36	6.948	9.72
1524MM M&Y 60G (1-D SKID MOUNTED) - 30/36KW MOTOR	30	5.79	8.1
	36	6.948	9.72
450MM MRDE DE-DUSTER 11KW MOTOR (MAX FLOW 2.83M³/SEC)	11	2.123	2.97
610MM MRDE DE-DUSTER 18.5KW MOTOR (MAX FLOW 3.75M³/SEC)	18.5	3.5705	4.995
610MM MRDE HC DE-DUSTER 30KW MOTOR (MAX FLOW 5.5M³/SEC)	30	5.79	8.1
760MM C70 DE-DUSTER 37KW MOTOR (MAX FLOW 6.5M³/SEC)	37	7.141	9.99
SPARE WET FILTER PANEL FOR 490MM/ 11KW MRDE	11	2.123	2.97
SPARE WET FILTER PANEL FOR 610MM/ 18.5 KW OR 30KW MRDE	18.5	3.5705	4.995
	30	5.79	8.1
SPARE WET FILTER PANEL FOR 760MM/ 37KW MRDE (1.1M X 0.9M WET FILTERI	37	7.141	9.99
800MM COGEMACOUSTIC DVH10 WET DEDUSTER 75KW/ 90KW (MAX. FLOW 1(	75	14.475	20.25
	90	17.37	24.3
200 LTS MIXER 4.7KW	4.7	0.9071	1.269
400 LTR MIXER 4.7KW	4.7	0.9071	1.269
600 LTR MIXER/PUMP 15KW	15	2.895	4.05
400 LTR MIXER/PUMP 15KW	15	2.895	4.05
1M³ MIXER/PUMP 15KW	15	2.895	4.05
2M³ MIXER/PUMP 21.5KW	21.5	4.1495	5.805
MD62 MONO PUMP 7.5KW	7.5	1.4475	2.025

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Emission Calculation Explanation

1. Electricity Emissions (kgCO2e/hr)

Electricity CO2e (kg/hr) = Energy (kWh) × Electricity Emission Factor

• Energy (kWh) = Power rating (kW) × Operating time (hours)

• Electricity Emission Factor (UK grid) = 0.193 kgCO2e per kWh

Example: For 30 kWh → 30 × 0.193 = 5.79 kgCO2e/hr

2. Diesel Emissions (kgCO2e/hr)

Diesel CO2e (kg/hr) = Energy (kWh) × Diesel Emission Factor

• Diesel Emission Factor = 0.27 kgCO2e per kWh equivalent

Example: For 30 kWh → 30 × 0.27 = 8.10 kgCO2e/hr

Interpretation:
Diesel-based energy consistently produces higher CO2e emissions compared to electricity. The
Graphic difference helps quantify how much more impactful diesel is, supporting decisions to
prioritize electricity over diesel for sustainability goals.