

PRODUCT DATA SHEET



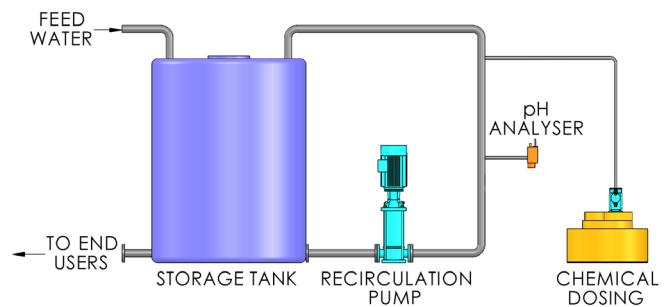
pH Adjustment - Recirculated (PAR)

water | wastewater | sewage

OVERVIEW

MAK's pH Adjustment - Recirculated (PAR) plants are designed to automatically adjust and maintain the pH level of raw water in a storage tank, prior to discharge to sewer/environment or reuse/recycling. The standard treatment process includes a recirculation pump to turn over the contents of the storage tank twice in a 24 hour period, an inline pH analyser which monitors the pH level and a dosing pump to automatically dose liquid alkali/acid. Dual chemical dosing pumps (alkali/acid) are available for when the raw water pH varies to allow for correction of both low and high pH raw water.

The system components are sized to suit the storage tank and daily usage. Optional equipment upgrades include; duty standby recirculation and dosing pumps, high/low pH levels, dual chemical dosing pumps (alkali/acid). MAK PAR plants are available as skid mounted or containerised systems for easy deployment to remote locations.



STANDARD SPECIFICATIONS

Parameter	Units	PAR-10	PAR-25	PAR-50	PAR-100	PAR-250	PAR-500	PAR-1000	PAR-2500	
Storage Tank Size (by others)	m ³	10	25	25	100	250	500	1,000	2,500	
Recirculation Pump Flow Rate	m ³ /hr	0.8	2.0	2.0	8.3	20.8	41.6	83.3	208.3	
Recirculation Pressure	kPa	100 ~ 200								
pH Level (target)	pH	6 ~ 8 (pH neutral) or as required								
pH Range (standard)	pH	4 ~ 12								
Raw Water Temperature	°C	15 ~ 35								
Ambient Design Temperature	°C	5 ~ 35 (-15 ~ 50 for insulated containerised system)								
Feed Water Inlet Pressure	kPa	>15 (flooded suction)								
Power Supply	-	AC 240V, 1 phase, 50Hz or AC 415V, 3 phase, 50Hz								AC 415V, 3 phase, 50Hz
Installed Power (approx.)	kW	1	1	1	1.5	2.5	3.5	6	16	
Bunded Chemical Storage Tank	L	200	200	200	500	500	1,000	1,000	1,500	
Container Size (optional)	ft	10'	10'	10'	10'	10'	10'	10'	20'	
Skid Size	mm	1,300 x 560 x 1,500				2,000 x 1,500 x 1,500				

STANDARD INCLUSIONS + OPTIONS

✓ = Standard Supply o = Optional Supply - = Not Applicable

Equipment	PAR-10	PAR-25	PAR-100	PAR-250	PAR-500	PAR-1000	PAR-2500	PAR-5000
Skid Mounted Plant	✓	✓	✓	✓	✓	✓	✓	✓
Recirculation Pump	✓	✓	✓	✓	✓	✓	✓	✓
Chemical Dosing Pump	✓	✓	✓	✓	✓	✓	✓	✓
Bunded Chemical Storage Tank	✓	✓	✓	✓	✓	✓	✓	✓
PLC Control System with HMI	✓	✓	✓	✓	✓	✓	✓	✓
Alarm Signal Output for Client Interface	✓	✓	✓	✓	✓	✓	✓	✓
Containerised System, c/w A/C & Lights	o	o	o	o	o	o	o	o
Container Non-slip Floor Coating	✓	✓	✓	✓	✓	✓	o	o
Container Insulation (walls & ceiling)	o	o	o	o	o	o	o	o
Container Side Access Door	-	-	-	-	-	-	o	o
Duty Standby Recirculation Pumps	o	o	o	o	o	o	o	o
Duty Standby Dosing Pumps	o	o	o	o	o	o	o	o
pH 1-12 Recirculation Pump	o	o	o	o	o	o	o	o
Dual Dosing Pumps (alkali/acid) c/w Dual Bunded Chemical Storage Tanks	o	o	o	o	o	o	o	o
Safety Shower & Eyewash Station	o	o	o	o	o	o	o	o

Instrumentation	Standard Package	Premium Package
Pressure Gauge	✓	✓
Flow Switch	✓	✓
Float Switch (chemical storage tank)	✓	✓
pH Analyser (4-20 mA)	✓	✓
Level Transmitter (4-20 mA, chemical storage tank)	-	✓
Data Logger (pH level)	-	✓
Remote Monitoring & Control Capabilities	-	✓

MODEL SELECTION

- 0010** 10 m³ Storage tank size
- 0025** 25 m³ Storage tank size
- 0100** 100 m³ Storage tank size
- 0250** 150 m³ Storage tank size
- 0500** 250 m³ Storage tank size
- 1000** 500 m³ Storage tank size
- 2500** 1000 m³ Storage tank size
- 5000** 5000 m³ Storage tank size
- XXXX** Custom tank (please nominate size)

- XX** Skid mounted
- CX** Containerised - standard
- CF** Containerised - with floor coating
- CP** Containerised with floor coating & insulation
 - X** Recirculation pump - standard
 - C** Recirculation pump - duty standby
 - X** Dosing pump - standard
 - C** Dosing pump - duty standby
 - X** High/low pH range recirculation pump - without
 - C** High/low pH range recirculation pump - included
 - X** Dual dosing pumps - without
 - C** Dual dosing pumps - included
 - X** Temperature sensor & alarm - without
 - C** Temperature sensor & alarm - included
 - X** Standard instrument package
 - P** Premium instrumentation package, c/w remote monitoring
 - C** Custom instrumentation and monitoring package

PAR _____

NEED A QUOTE?

COMPLETE THIS TABLE AND EMAIL TO...

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