



IRRIGATION CHECKLIST

IN THE IRRIGATION ROOM

NETAFIM KNOWLEDGE

TAKE NOTE			Ensure that irrigation design and specifications are available for reference. Refer to design specifications when necessary. Always take the necessary safety precautions. Involve the necessary experts when required.	
			CHECKLIST ITEM	ACTION & DETAILS
1	WATER SOURCE	a	Water level of sump/dam	
		b	Inlet grids from water source	Check that grids are clean .Clean pre-filter
		c	Suction point (If present)	Clear of obstructions (plants or mud) Check if deep enough & that there are no air vortexes Must be > 500 mm from foot valve Must be >700 mm below water surface
		e	Suction pipes	Check for leaks or air suction
		f	Water inlet and suction point	Positioned as far as possible from each other
		g	Backflush discharge point and suction position	Backflush discharge downstream or minimum 50 metres from suction point
		h	Water quality	Take water samples. As per Netafim guidelines (1 during winter & 1 during summer months)
WARNING			USE EXTREME CAUTION WHEN WORKING WITH ELECTRICAL AND MECHANICAL COMPONENTS. INVOLVE EXPERTS WHEN NECESSARY.	
2	PUMPS	a	Number of pumps for number of valves open	According to design specification
		b	Variable speed drives (VSD)	Check efficient operation
		c	Pump flow delivery (m³/hour)	Confirm correct flow according to design
		d	AMPS on control panel and pressure gauge	Must be balanced and within range
		e	Check for excessive heat at pumps, VSDs & irrigation room in general	Feel by hand after switching off pumps Ensure sufficient ventilation in irrigation room
		f	Listen for excessive noise (Bearings)	When running
		g	Pump graphite packing	Must drip, but not leak excessively
3	VALVES	a	Main valves	Ensure three-way valve is on AUTO setting if specified in design
		b	Block valves (Auto vs Manual)	Ensure correct valves are opened (on auto) for each shift according to design and scheduling
		c		Correct number open and within pressure range according to design specification

**FOR MORE INFORMATION,
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			CHECKLIST ITEM	ACTION & DETAILS
4	FILTERS	a	Differential pressure [DP]	≤ 0.5 bar
		b	Downstream pressure	According to design specification
		c	Command filter	Isolate & open Check status of discs regularly (clean or dirty)
		d	Backflush controller settings	According to filter specification
		e	Activate manual flush	Monitor operation for each filter (manual check)
		f	General (Inside irrigation room)	No leaks or venting
		g	Outside: Observe backflush cycle	Water must be clean after flush
		h	Outside: Backflush Manifold	No water must run from backflush pipe if not in backflush mode. If water is running, setting can be on manual or seals may be leaking
		i	Backflush duration	Must be in line with water quality
		j	Peroxide treatment on filter discs (Adhere to safety protocols)	Date of last treatment & next required date Regular inspection
		k	Peroxide treatment	According to protocol specifications
		l	Upstream vs downstream pressure - before & after backflush cycle	According to design specifications
		m	Filter inspection	Regular inspection required Water quality determines frequency All discs must be the same & correct colour (micron)
		n	Recording of backflush cycles (DP/time)	Check weekly that settings are unchanged
		o	Backflush settings: DP & time ratio	According to filter specification
		p	Backflush manifold size	According to design specifications No back pressure on backflush
5	FLOW	a	Water meter readings (Check that it takes reading)	Confirm that START & END readings are recorded
		b	Flow rate	Compare actual rate to design specifications
		c	Ensure that flow rate is 0 if valves are closed	
6	INJECTION	a	Ensure that scheduling programme is available & accessible. Scheduling determines irrigation programme which determines injection rates & volumes	
		b	Ensure that chemical treatment programme is available & accessible Ensure hardware is installed & in line with design specification Check both continuous & maintenance programmes	
		c	Number of peroxide treatments scheduled	Confirm & check if up to date with programme
		d	Check operation & calibration of injection & agitation	According to design specifications & fertilizer programme
		e	Confirm that injection system can adapt to different applications if required	
		f	Tanks & filters	No residue or contaminants in tank before new batch is added. No residue or contaminants on filter
7	GENERAL	a	Overall cleanliness	Clean & neat inside & outside
		b	Overall condition of equipment	Observe that there are no noticeable leaks or excessive noise
		c	Rain gauge	Check if secure, clean, & recorded
		d	Equipment & spares stock list	Check & record
		e	Maintenance tools	All tools readily available

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