



Comparison of Common Fish Screens

The below comparison grid is intended as a guide to assist in determining what type of fish screen is suitable based on varying requirements.

	SELF-CLEANING PASSIVE SCREENS		MECHANICALLY CLEANED VERTICAL SCREENS		MECHANICALLY CLEANED CYLINDRICAL SCREENS	MECH. CLEANED CONICAL SCREENS	
	Farmers Screen™ Horizontal Fixed Plate Screen	Coanda Screen Non-vertical Fixed Plate Screen	Vertical Fixed Plate Screen	Vertical Traveling Screen	Rotary Drum Screen	Submerged Cylindrical Screen	Cone Screen
APPROVED BY NATIONAL MARINE FISHERIES	yes	can be	yes	yes, newer designs	yes	can be	can be
OVERALL MECHANICAL COMPLEXITY	very low	very low	medium	high	medium	high	medium
MECHANICAL CLEANING REQUIRED?	no	no	yes	yes	yes, slow-moving drum	yes	yes
TYPE OF CLEANING MECHANISM	bypass flow sweeps screen	bypass flow sweeps screen	fixed arm brush, air burst option	rotational brush, jet spray option	rotational motion, jet spray option	submerged rotating brush, reverse flow	rotating brush around cone
EASE OF SERVICE	nothing to service	nothing to service	fairly simple	pulley systems of various forms often wear out	seals and driving mechanisms often wear out	submerged mechanisms rises with lift	submerged cleaning arms difficult access
CLEANING MECHANISM CONTROL SYSTEM	none	none	required unless constant brushing	most often required	required unless constant rotation	most often required	most often required
ABILITY TO SCREEN FOR DEBRIS	intrinsic part of design	intrinsic part of design	decent	decent	none	decent	decent
RETURN FLOW REQUIREMENT	typically 5-10% of diversion flow	very large	no	no	yes	no	no
HEAD REQUIREMENT ACROSS STREAM	medium drop	high drop	low	low	low	none	none
COMMONLY LOCATED	off stream	off stream or across stream	off stream or edge of stream	off stream or edge of stream	off stream	under water in stream	under water in stream
LAND REQUIREMENT	footprint area increases with flow	length or head drop increase with flow	length or depth increases with flow	length or depth increases with flow	length increases with flow	usually small footprint on stream edge	very small if any
SUITABLE FOR NEAR-ZERO GRADE RIVERS	no	no	yes	yes	no	yes	yes
SUITABLE AT RESERVOIRS WITH VARYING ELEVATION	no	no	may reduce diversion flow at low elevation	may reduce diversion flow at low elevation	no	yes	yes

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