Shaft Seal Designation for Centrifugal pumps

Row	Designation code	Description	API Plan	Explanation	Figure
1	P1.00	No piping,	Plan 01	Soft packing – P1	Plan 02
		internal circulation			
2	P1.08	Fluid from an external source	Plan 32	Soft packing – P1	Plan 02 Flushing Plan 32
3	S1.00	No piping, internal circulation	Plan 01	Single mechanical seal – S1	Plan 02
4	S1.02	Circulated fluid from pump outlet to seal cavity (with internal return)	Plan 11	Single mechanical seal – S1	Plan 11
5	S1.02-21.11.41	Circulated fluid from pump outlet to seal cavity (with internal return)	Plan 11	Single mechanical seal – S1 Basic arrangement – 02 Orifice – 21 Shut off valve – 11 Pressure indicator – 41	Plan 11 11 21 1 21 1 1 1 1 1 1 1 1 1 1 1 1 1
6	\$1.02-21Q3	Circulated fluid from pump outlet to seal cavity (with internal return) and quenching fluid supplied from external source	11 + 61	Single mechanical seal – S1 Basic arrangement – 02 Orifice – 21 Quench – Q3	Plan 11 Q3 Plan 61 Plan 61

Row	Designation code	Description	API Plan	Explanation	Figure
7	S1.04-61	Circulation fluid via cyclone (with internal return); dirty line to pump inlet	31	Single mechanical seal – S1 Basic arrangement – 04 Cyclone – 61	
8	S1.07	Internal circulation fluid to seal and return to pump inlet	13	Single mechanical seal – S1 Basic arrangement – 07	Plan 13
9	S1.08	Fluid from an external source	32	Single mechanical seal – S1 Basic arrangement – 08	External Plushing Plan 32
10	P1.08-12.32.11.41	Fluid from an external source	32	Single mechanical seal, S1 Basic arrangement, 08 Hand control valve – 12 Filter – 32 Shut off valve – 11 Pressure indicator – 41	V41 11 32 External flushing Plan 32 Flan 32
11	D1.10- 21.64(63.41.42)Q3	Circulated fluid from pump outlet to seal cavity (with internal return) Buffer fluid supplied by tank	11 + 52 + 61	Double mechanical seal – D1 Basic arrangement – 10 Orifice – 21 Tank – 64 Heat exchanger (internal) – 63 Pressure indicator (internal) – 41 Temperature indicator (internal) – 42 Quench – Q3	Pian 11 Pian 12 Pian 52 Buffer fluid Q3 Plan 61
12	D1.11- 21.64(63.41.42)Q3	Circulated fluid from pump outlet to seal cavity (with internal return) Barrier fluid supplied by tank	11 + 53 + 61	Double mechanical seal – D1 Basic arrangement – 11 Orifice – 21 Tank – 64 Heat exchanger (internal) – 63 Pressure indicator (internal) – 41 Temperature indicator (internal) – 42 Quench – Q3	Plan 11 Plan 11 Plan 53 Barrier fluid Plan 61