Date of Issue: January 2019

Affected Publication: API Specification 19G2, *Flow-control Devices for Side-pocket Mandrels*, First Edition, June 2010

Addendum 1

Page 14: Table 1 shall be replaced with the following:

Table 1 — Flow-control device descriptions

Flow-control device group	Flow-control device types	Flow-control device description
I	IPO	Injection-pressure-operated flow-control device
	Balanced IPO	Injection-pressure-operated flow-control device with no “spread”, that is the opening and closing pressures are the same
	IPO with choke	Injection-pressure-operated flow-control device, with a choke installed downstream of the port
II	PPO	Production-pressure-operated flow-control device
	PPO with choke	Production-pressure-operated flow-control device, with a choke installed upstream of the port
III	Pilot	Injection-pressure-operated flow-control device with a pilot section and a full-opening primary flow section
	Differential	Flow-control device that opens and closes depending on the difference between the injection and production pressures
IV	Orifice	Flow-control device that cannot be closed
	Nozzle venturi	Flow-control device that cannot be closed, having a port in the shape of a venturi nozzle
	Shear orifice	Flow-control device that is initially closed; once it is opened, it cannot then be reclosed
	Dump/kill	Flow-control device that is initially closed; once it is opened, it cannot then be reclosed. These valves have very large ports and no reverse-flow check to allow a high-injection rate to kill the well.
V	Dummy	Blank device that is installed in a side-pocket mandrel to prevent flow or pressure communication between the casing annulus and the tubing

Page 32: Table A.2 shall be replaced with the following:

Table A.2 — Testing requirements

Flow-control device group and type (See 6.1.2)		Design validation test and/or product functional test	Annex	Design validation and product functional test requirements for each flow-control device grade					
				V3 Basic grade	V2 Intermediate grade	V1 Highest grade	F3 Basic grade	F2 Intermediate grade	F1 Highest grade
I	IPO Balanced IPO IPO w/ choke	Interface	E	E.2.1	E.2.1	E.2.2	-	-	-
		Insertion	F	F.2	F.2	F.2	-	-	-
		Probe or travel	G	G.2	G.2	G.2	-	G.4.2	G.4.3
		Load rate	G	G.3	G.3	G.3	-	G.5.2	G.5.3
		Flow	H	-	H.2.2	H.2.3	-	-	-
		Back-check	I	I.2.1	I.2.2	I.2.3	I.3.1	I.3.2	I.3.3
		Open and close	J	J.1.2	J.1.2	J.1.2	-	-	-
		Open	J	-	-	-	J.2	J.2	J.2
		Close	J	-	-	-	-	J.3.2	J.3.3
		Actuation life cycle	K	-	-	K.2.2	-	-	-
		Erosion	L	-	L.2.2	L.2.2	-	-	-
		Shelf	M	M.2.1	M.2.1	M.2.1	M.3.2	M.3.2	M.3.2
		Port/seat leakage rate	N	N.2.1	N.2.1	N.2.1	N.3.1	N.3.1	N.3.1
II	PPO PPO w/choke	Interface	E	E.2.1	E.2.1	E.2.2	-	-	-
		Insertion	F	F.2	F.2	F.2	-	-	-
		Probe or travel	G	G.2	G.2	G.2	-	G.4.2	G.4.3
		Load rate	G	G.3	G.3	G.3	-	G.5.2	G.5.3
		Flow	H	-	H.2.2	H.2.3	-	-	-
		Back-check	I	I.2.1	I.2.2	I.2.3	I.3.1	I.3.2	I.3.3
		Open and close	J	J.1.2	J.1.2	J.1.2	-	-	-
		Open	J	-	-	-	J.2	J.2	J.2
		Close	J	-	-	-	-	J.3.2	J.3.3
		Actuation life cycle	K	-	-	K.2.2	-	-	-
		Erosion	L	-	L.2.2	L.2.2	-	-	-
		Shelf	M	M.2.1	M.2.1	M.2.1	M.3.2	M.3.2	M.3.2
		Port/seat leakage rate	N	N.2.1	N.2.1	N.2.1	N.3.1	N.3.1	N.3.1

Table A.2 (*continued*)

Flow-control device group and type (See 6.1.2)		Design validation test and/or product functional test	Annex	Design validation and product functional test requirements for each flow-control device grade					
				V3 Basic grade	V2 Intermediate grade	V1 Highest grade	F3 Basic grade	F2 Intermediate grade	F1 Highest grade
III	Pilot Differential	Interface	E	E.2.1	E.2.1	E.2.2	-	-	-
		Insertion	F	F.2	F.2	F.2	-	-	-
		Flow	H	-	H.2.2	H.2.3	-	-	-
		Back-check	I	I.2.1	I.2.2	I.2.3	I.3.1	I.3.2	I.3.3
		Open and close	J	J.1.2	J.1.2	J.1.2	-	-	-
		Open	J	-	-	-	J.2	J.2	J.2
		Close	j	-	-	-	-	J.3.2	J.3.3
		Actuation life cycle	K	-	-	K.2.2	-	-	-
		Erosion	L	-	L.2.2	L.2.2	-	-	-
		Shelf	M	M.2.1	M.2.1	M.2.1	M.3.2	M.3.2	M.3.2
		Port/seat leakage rate	N	N.2.1	N.2.1	N.2.1	N.3.1	N.3.1	N.3.1
IV	Orifice Nozzle venturi Shear orifice Dump/kill	Interface	E	E.2.1	E.2.1	E.2.2	-	-	-
		Insertion	F	F.2	F.2	F.2	-	-	-
		Flow	H	-	H.2.2	H.2.3	-	-	-
		Back-check	I	I.2.1	I.2.2	I.2.3	I.3.1	I.3.2	I.3.3
		Open and close	J	J.1.2	J.1.2	J.1.2	-	-	-
		Erosion	L	-	L.2.2	L.2.2	-	-	-
		Port/seat leakage rate	N	-	-	-	N.3.1	N.3.1	N.3.1
V	Dummy	Interface	E	E.2.1	E.2.1	E.2.2	-	-	-

Page 41, Section F.2.3: The opening paragraph and list shall be replaced with the following:

In this procedure, only steps e) through i) shall be followed for shear orifice and dump kill devices of class IV flow-control devices.

Page 46: Section G.4.2.1 shall be replaced with the following:

The probe or travel test requirements for product functional testing grade F2 shall be as defined below.

Page 55: Section H.2.1 shall be replaced with the following:

There are no dynamic flow validation requirements for grade V3.

Page 56: Section H.3 shall be replaced with the following:

There are no flow test requirements for any product functional testing grade.

Page 88: Section J.3.1 shall be replaced with the following:

There are no close test requirements for product functional testing grade F3.

Page 100: Section M.3.2.1 shall be replaced with the following:

The shelf test requirements for product functional testing grades F3, F2, and F1 shall be as defined in M.3.2.2 to M.3.2.5.