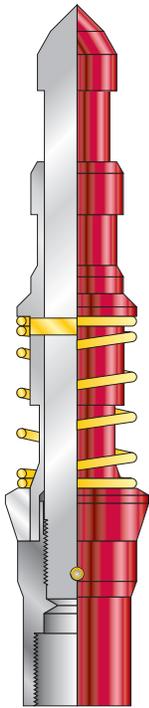
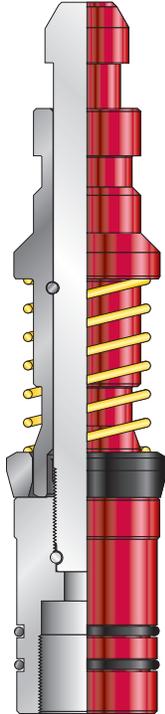


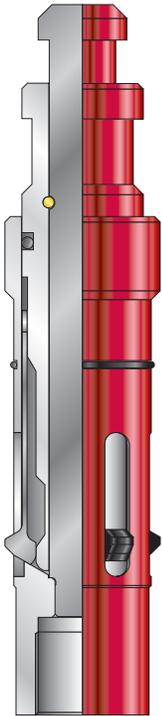
## Latches



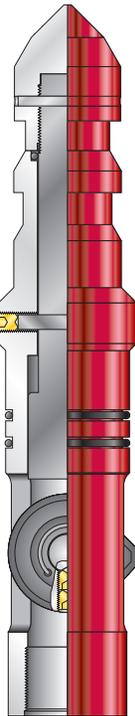
BK-2 Latch



RKP Latch



MT-2 Latch



RA Latch

### *Wireline-Retrieveable Latches for Side-Pocket Mandrels: BK, BEK, RK, RKP, RA, MT, and RM Series*

Weatherford offers a variety of wireline-retrieveable latches for locking gas-lift, chemical-injection, and other special-application devices into the appropriate side-pocket mandrel. To retrieve the latch and attached valve, the operator jars the tool string upward, shearing the release shear pin and disengaging the locking mechanism from the latch-lug pocket profile. Weatherford's line of wireline-retrieveable latches includes the BK-2, BEK-2, RK, RKP, RA, MT-2, and RM models. A ported inside diameter (ID) is included in certain models for applications that require a communication path between the latch and an attached flow-controlled device such as a circulating valve.

The BK-2 and BEK-2 latches feature a spring-loaded, ring-style locking mechanism. These valves are used to secure a 1-in. outside diameter (OD) valve or dummy valve in a side-pocket mandrel with a 1-in. ID pocket. The two models are similar, but the BEK-2 model has a 0.375-in. ported ID. Both models are compatible with Weatherford's McMurry-Macco® series SM-1, SMO-1, SFO-1, SIFO-1, SBRO-1, and SMOR-1 side-pocket mandrels equipped with a 180° latch-lug profile.

The RK and RKP latches also have a spring-loaded, ring-style locking mechanism and are used to secure a 1 1/2-in. OD valve or dummy valve in a side-pocket mandrel with a 1 1/2-in. ID pocket. The two models are similar, but the RKP model has a 0.453-in. ported ID. Both models are compatible with McMurry-Macco series SFO-2, SMOR-2, and SBRO-2 side-pocket mandrels equipped with a 180° latch-lug profile.

The RA latch is used to secure a 1 1/2-in. OD valve or dummy valve in a side-pocket mandrel with a 1 1/2-in. ID pocket. The RA latch has a spring-loaded rotating-cam lock and an O-ring-style debris barrier. This latch is compatible with McMurry-Macco series SM-2, SMR-2, SBRO-2RA, SMOR-2RA, and SMO-2RA side-pocket mandrels equipped with a 360° latch-lug profile.

The MT-2 and RM latches offer additional holding ability with a collet-type and dog-type locking mechanism, respectively. These latches are used to secure a 1 1/2-in. OD valve or dummy valve in a side-pocket mandrel with a 1 1/2-in. ID pocket and a 360° latch-lug profile.



## Features, Advantages, and Benefits

- Wireline-retrievable latch design allows valves to be pulled and serviced or replaced without pulling the tubing, reducing maintenance and repair costs.
- A ported ID is included in certain models to allow flow through the latch to an attached flow-controlled device.
- Most 1 1/2-in. OD latch models include two O-rings that provide a barrier against fine sands and debris, protecting the latch from becoming stuck and hindering retrieval.

## Specifications

Valve Pocket ID (in./mm)	Latch Pocket Profile	Latch Model	Assembly Number	Latch Mechanism	Ported ID (in./mm)	Pulling Neck OD (in./mm)	Running Neck OD (in./mm)	Running Tool	Pulling Tool
1.0 25.4	180°	BK-2	0901-XXX	Lock-ring	N/A	0.875 22.23	0.750 19.05	JK	1 1/4-in. JDC
		BEK-2	0902-XXX		0.313 7.95				
1.5 38.1	180°	RK	1002-XXX	Lock-ring	N/A	1.185 30.10	0.937 23.80	RK-1	1 5/8-in. JDS
		RKP	1003-XXX		0.453 11.51				
1.5 38.1	360°	MT-2	1005-XXX	Collet	N/A	1.367 34.72	1.000 25.40	TER	2-in. JDC
		RM-2	1007-XXX	Dog			1.340 34.04	JC-3	
		RA	1001-XXX	Cam			1.359 34.52		

N/A = not applicable

## Options

- Models are available in standard 316 SS and optional special corrosion-resistant and/or erosion-resistant materials for durability and extended service life.
- Latches are available with special coatings to prevent scale buildup and enhance erosion resistance.

## Real Result

### Gas-lift system problems eliminated, revenues increase

An operator wanted to return a 100-percent, oil cut, high-productivity well in the Gulf of Mexico production. The well was gas-lifting from several valves, and its severe deviation hindered solving the problem using standard slickline and gas-lift tools.

Weatherford used a wireline-retrievable BK-MSD shear-down latch to lock the gas-lift valve into the mandrel pocket, higher than before. The production increase provided the operator with \$8.76 million per year in additional revenue.