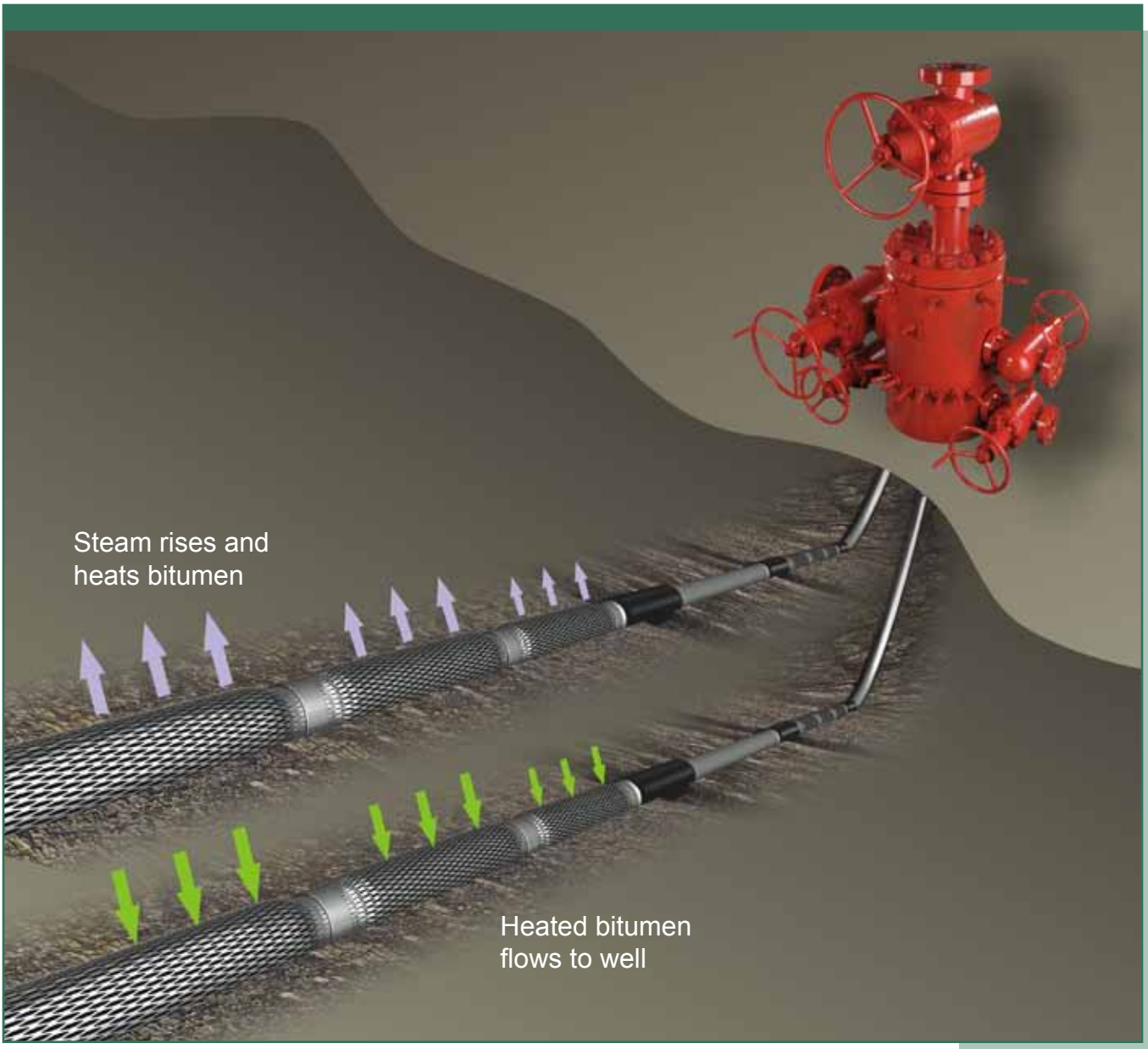
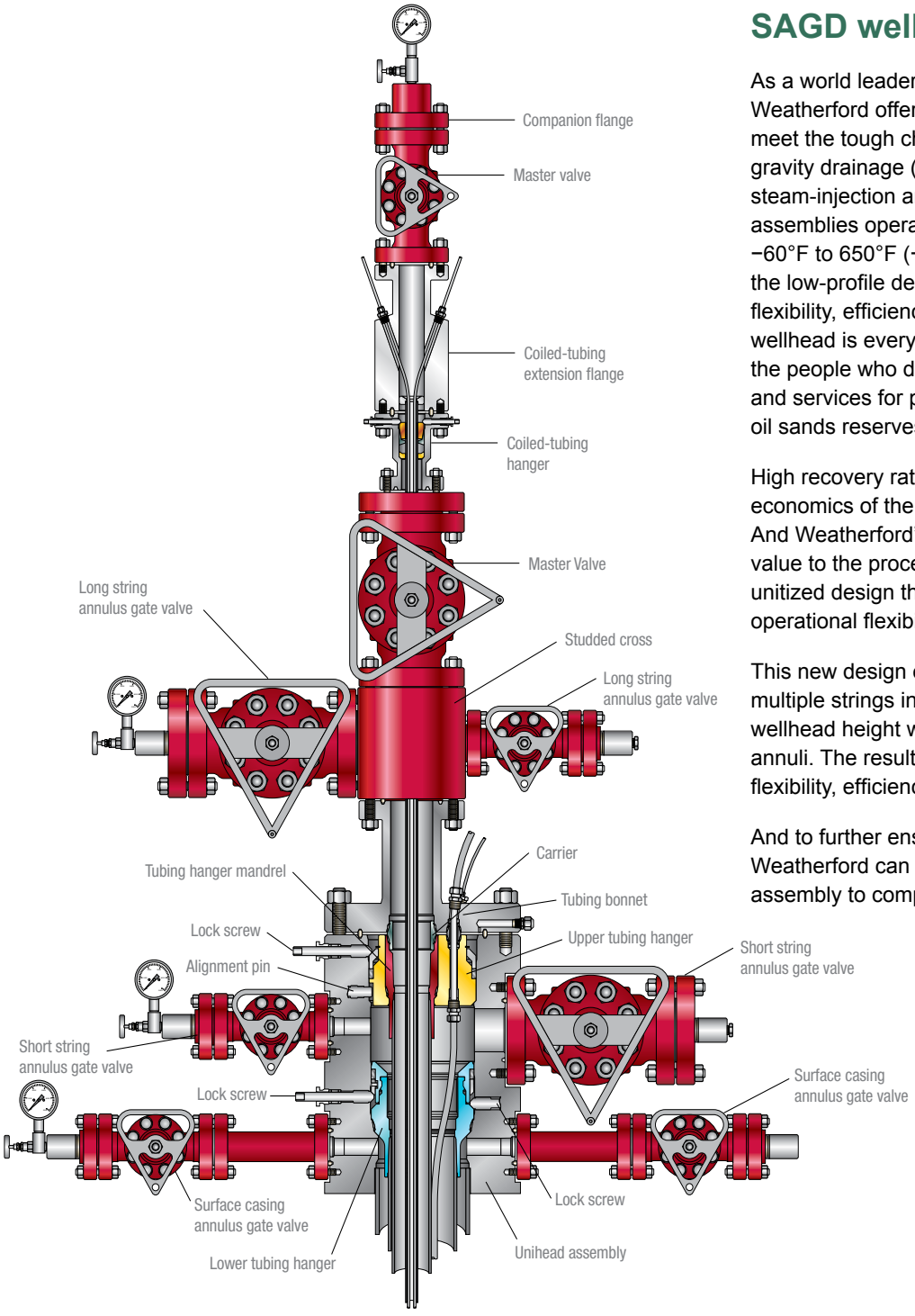
Weatherford®

SAGD Wellhead

Building flexibility and efficiency.



Achieve the flexibility and efficiency you need at the wellhead for the toughest heavy-oil challenges.



SAGD wellhead takes the heat

As a world leader in heavy-oil technology, Weatherford offers a wellhead engineered to meet the tough challenges of steam-assisted gravity drainage (SAGD) applications. These steam-injection and thermal-producing wellhead assemblies operate in temperatures from −60°F to 650°F (−45°C to 343°C). What's more, the low-profile design increases operating flexibility, efficiency and safety. The SAGD wellhead is everything you would expect from the people who deliver innovative products and services for producing heavy oil and oil sands reserves.

High recovery rates of up to 60 percent make the economics of the SAGD process highly attractive. And Weatherford's SAGD wellhead adds further value to the process with its unique low-profile, unitized design that increases efficiency and operational flexibility.

This new design enables concentric landing of multiple strings into one body, reducing overall wellhead height while enabling access to all annuli. The result is greater operational flexibility, efficiency and safety.

And to further ensure peak performance, Weatherford can customize the wellhead assembly to complement your well design.

High recovery rates plus high efficiency

- Temperature range: −60°F to 650°F (−45°C to 343°C) per API 6A
- Special graphoil packing material in the mandrel tubing hanger enables seals to withstand temperatures as low as −400°F (−240°C) and as high as 1,200°F (648°C)
- Mandrel tubing-hanger enables easy manipulation of additional control lines
- Unitized design enables concentric landing of multiple strings into one body
- Reduced overall wellhead height provides better access to all annuli
- API-monogrammed wellhead ensures reliability
- Applicable for both SAGD and sour service (H_2S)
- Wellhead assembly can be customized to suit your well design
- Designed, built and backed by Weatherford
- Available in two different configurations—producer or injector—which are customizable to your specific application

The Alberta Energy and Utilities Board credits the SAGD process with helping to increase Canada's proven oil reserves to 179 billion bbl—second only to Saudi Arabia. The process features two horizontal wells drilled with about 16 ft (4.9 m) of vertical separation. Steam is injected into the upper well to heat the crude oil or bitumen, which lowers its viscosity, enabling it to flow down into the lower wellbore where it is pumped to the surface. Canada, Venezuela and Saudi Arabia have the world's largest deposits of bitumen.

Open up the full potential of heavy-oil reserves.

Weatherford is a single source for products and services to make heavy oil economical to produce. We have everything it takes to make the most out of drilling, completion and production in heavy oil and oil sands. Along with SAGD technology and services, we can help you meet the challenges of cold production, cyclic-steam stimulation (CSS) and cold heavy-oil production with sand (CHOPS).

To find out more about the SAGD wellhead and how Weatherford's total heavy-oil capabilities can help you maximize recovery, contact your Weatherford representative at **403.693.7500** or visit **weatherford.com/wellheads**.

Weatherford®

515 Post Oak Blvd., Suite 600
Houston, Texas 77027 USA
Tel: 713-693-4000
weatherford.com