



Weatherford[®]

Iron Man[™] Series Mud Pumps

A heart of steel



Weatherford offers a full line of premium-quality mud pumps based on proven and simple-to-maintain designs that are accepted around the world. Each pump comes with exceptional service and support that only a true global provider like Weatherford can promise. When you factor in our competitive pricing and off-the-shelf availability of pumps and parts, it's clear that Weatherford has raised the bar for mud pumps.

Iron Man™ Series Mud Pumps

Weatherford support around the clock.

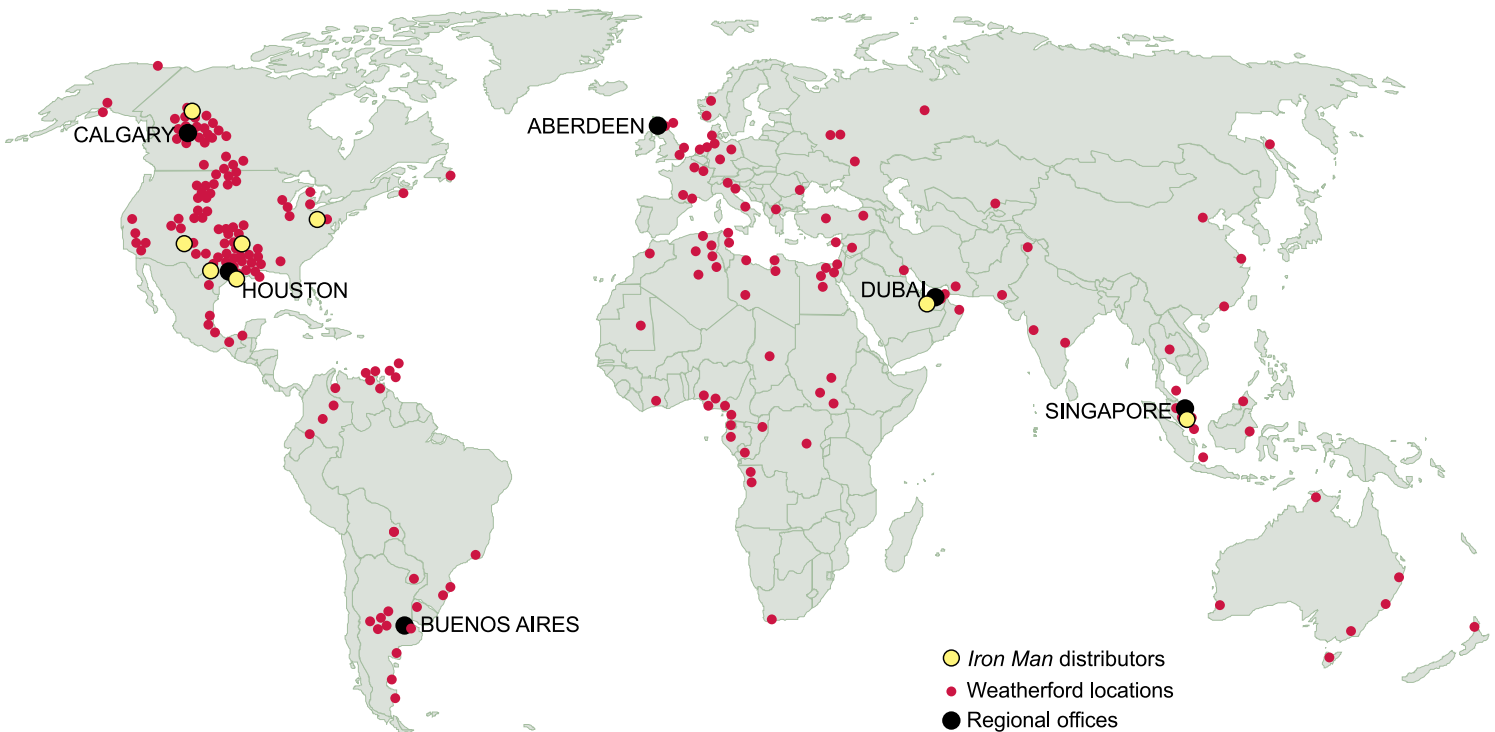
At Weatherford we know that developing technologies and the expertise and training that go with them are critical to our success—and our clients'—moving forward.

As a result, not only do we have a strong reputation and tradition for providing fit-for-purpose and responsive service, we also are a leader in the development and deployment of production-enabling technologies that add significant value to the industry.

More service

Weatherford provides a local-service touch with global-network reach. Our expertise, support and proven technology can maximize the efficiency and safety of your operations.

More than
34,000 people
710 facilities
100 countries
85 manufacturing plants
16 training and R&D facilities
10 service lines
But *only* **ONE**
Weatherford.

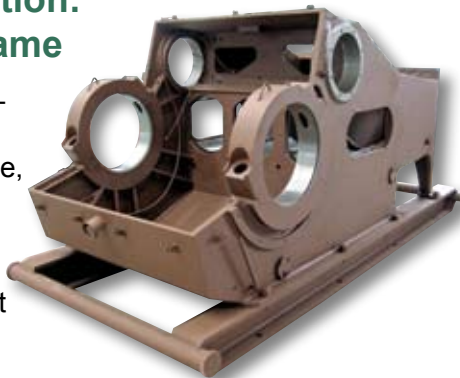


Iron Man™ Series Mud Pumps

Built tough for lasting value.

Built on a strong foundation: The steel-plate power frame

Power frames fabricated from high-strength steel plates are strong yet lightweight. They're free of shrinkage, porosity and other defects often associated with castings. Frames are heat-treated after fabrication to remove residual stress and prevent distortion after final machining.



Cranking out massive power: Single-piece, high-alloy crankshaft

Our eccentric-style crankshaft, machined from a single-piece, high-alloy steel casting, is mounted to the power frame with double-row, self-aligning radial spherical roller bearings on each end for maximum service life. The forged-steel main gear, featuring a double-helical profile, is mounted securely to the crankshaft, using bolts with locking nuts.

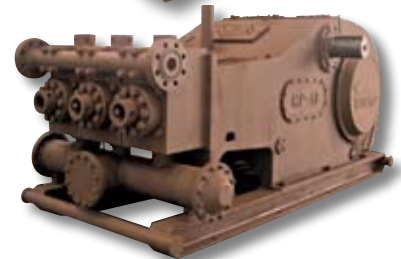
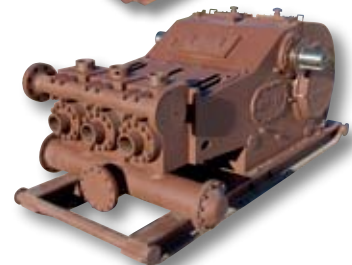
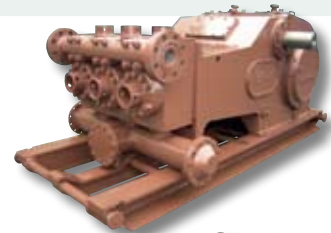


| Pump stroke lengths and internal gear reduction ratios: | |
|---|-------------------------------------|
| Iron Man MP-5 | 7 1/2-in. stroke with 4.240:1 ratio |
| Iron Man MP-8 | 9-in. stroke with 4.185:1 ratio |
| Iron Man MP-10 | 10-in. stroke with 4.207:1 ratio |
| Iron Man MP-13 | 12-in. stroke with 4.31:1 ratio |
| Iron Man MP-16 | 12-in. stroke with 4.31:1 ratio |

Iron Man MP-5 Mud Pump



F series design compatibility means that parts are readily available and fully interchangeable. Our *Iron Man* MP series mud pumps are based on the industry-recognized, proven and trusted F series mud pump. Replacement parts and services are backed by one of the largest and most respected names in the industry: Weatherford.



Iron Man™ Series Mud Pumps

For a heavy workload: The eccentric with cylindrical roller bearings

Manufactured from a steel casting, the eccentric uses cylindrical roller bearings on one end and double-row needle bearings on the other to provide extremely high load-carrying capacity and quiet, efficient, long-lasting durability.

Durability and corrosion resistance: Chrome-lined liners

Standard liners on all *Iron Man* pumps are bi-metal style, with an extremely hard, durable, corrosion-resistant chrome-iron surface. Ceramic liners are an available option.

Building strong bodies: Crosshead machined from iron casting

Crosshead bodies are machined from a nodular ductile iron casting, having excellent strength and self-lubricating properties to minimize friction and wear. The crosshead is mounted on replaceable guide shoes for easy maintenance.

Fighting corrosion and erosion: Nickel-plated fluid end modules

Three interchangeable fluid end modules are machined from an AISI 8630 steel forging and can be nickel plated on request.

Interchangeability: Versatile valve assemblies

Suction and discharge valve assemblies are interchangeable and manufactured to accept industry-standard API replacement valves and pulling tools.

Iron Man MP-5 uses API-5 valves

Iron Man MP-8 and MP-10 use API-6 valves

Iron Man MP-13 and MP-16 use API-7 valves

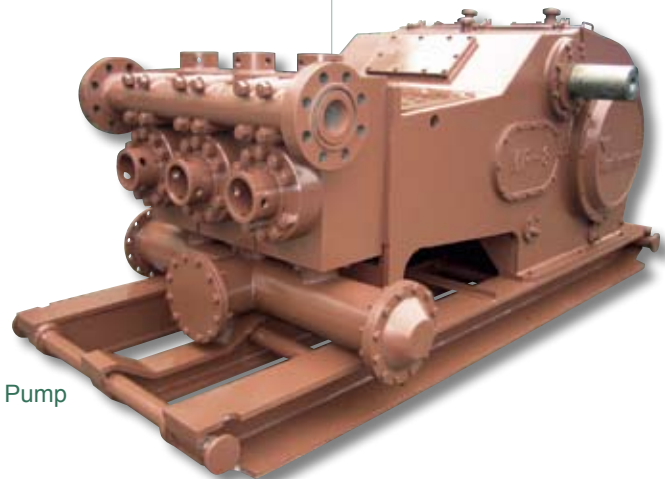


Two-way street: Double-input pinion shaft extensions

With their user-friendly double-input shaft extensions, our pumps can be driven from either side. Shaft is made of high-alloy steel forging for high durability.

The well-oiled machine: Lubrication

Iron Man pumps feature a splash and forced-lubrication system for the power end. Oil is distributed from the sump through an internally mounted oil pump and then to all moving parts. An optional external lube system, with AC motor drive and canister filtration, is available on request.



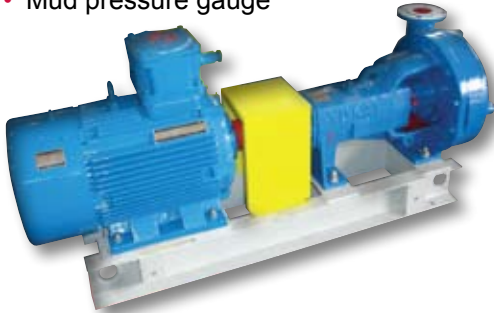
Iron Man MP-8 Mud Pump

Iron Man™ Series Mud Pumps

Built-in extra-value features.

Weatherford offers a wide array of popular accessories for the *Iron Man* series mud pumps. They include:

- Discharge pulsation dampener
- Complete liner wash systems
- Strainer assembly
- Relief valve
- Mud pressure gauge



Centrifugal mud pump packages



Discharge pulsation dampener

Full line of *Iron Man* series pumps

Weatherford's full line of *Iron Man* mud pumps are rated for 500 HP, 800 HP, 1,000 HP, 1,300 HP and 1,600 HP maximum operating conditions.

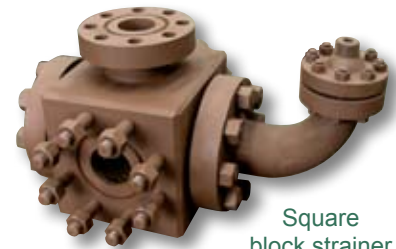
All pumps receive comprehensive inspections during production, assembly and testing. Every pump is backed by Weatherford with a full one-year warranty.



Each *Iron Man* pump is shipped under specially designed protective coverings.



KB-75 pulsation dampener



Square block strainer



Accessory manifold



Mud gauges



Complete liner wash system

Iron Man™ Series Mud Pumps

Specifications

MP-5 Pump

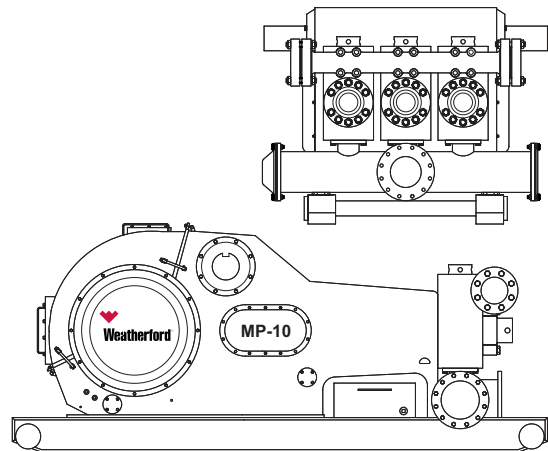
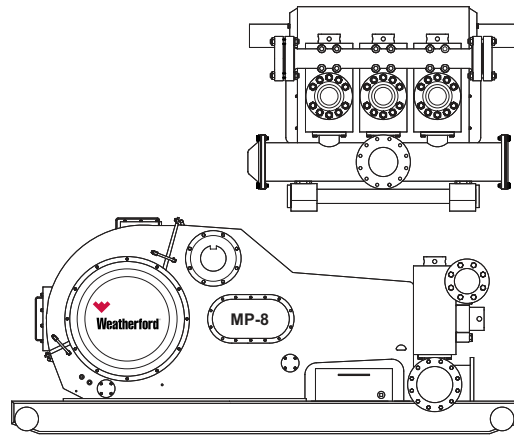
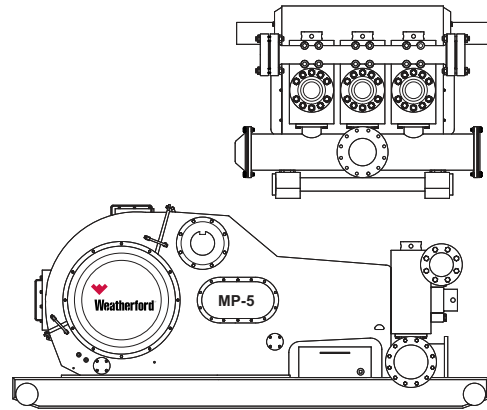
| Liner Size (in.) | | 6-1/2 | 6 | 5-1/2 | 5 | 4-1/2 | 4 |
|----------------------|------------|--------------------|-------|-------|-------|-------|-------|
| Rated Pressure (psi) | | 1,425 | 1,675 | 2,000 | 2,425 | 3,000 | 3,800 |
| Speed (SPM) | Power (HP) | Displacement (GPM) | | | | | |
| 165 | 500 | 533 | 454 | 382 | 316 | 256 | 202 |
| 160 | 482 | 517 | 441 | 370 | 306 | 248 | 196 |
| 150 | 452 | 485 | 413 | 347 | 287 | 232 | 184 |
| 140 | 422 | 452 | 386 | 324 | 268 | 217 | 171 |
| 130 | 392 | 420 | 358 | 301 | 249 | 201 | 159 |
| 120 | 362 | 388 | 330 | 278 | 229 | 186 | 147 |
| 110 | 332 | 356 | 303 | 255 | 210 | 170 | 135 |
| 1 | | 3.23 | 2.75 | 2.31 | 1.91 | 1.55 | 1.22 |

MP-8 Pump

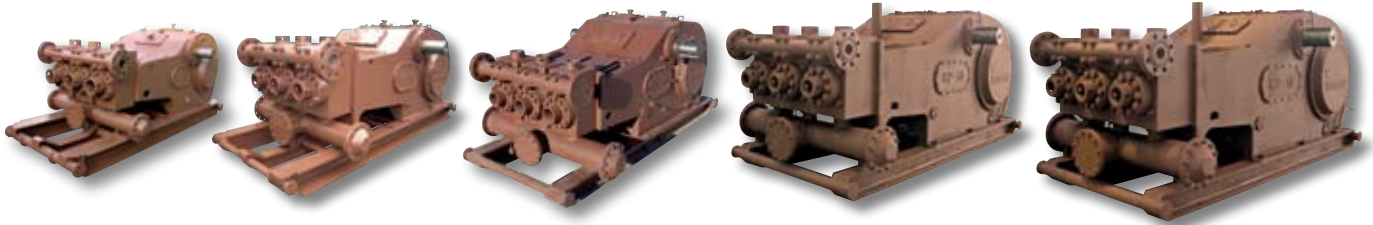
| Liner Size (in.) | | 6-1/2 | 6 | 5-1/2 | 5 | 4-1/2 | 4 |
|----------------------|------------|--------------------|-------|-------|-------|-------|-------|
| Rated Pressure (psi) | | 2,100 | 2,475 | 2,950 | 3,575 | 4,275 | 5,000 |
| Speed (SPM) | Power (HP) | Displacement (GPM) | | | | | |
| 150 | 800 | 582 | 496 | 417 | 344 | 279 | 220 |
| 140 | 744 | 543 | 463 | 389 | 321 | 260 | 206 |
| 130 | 691 | 504 | 430 | 361 | 298 | 242 | 191 |
| 120 | 638 | 465 | 397 | 333 | 275 | 223 | 176 |
| 110 | 585 | 427 | 364 | 305 | 252 | 204 | 162 |
| 100 | 532 | 388 | 330 | 278 | 229 | 186 | 147 |
| 90 | 479 | 349 | 297 | 250 | 207 | 167 | 132 |
| 1 | | 3.88 | 3.30 | 2.78 | 2.29 | 1.86 | 1.47 |

MP-10 Pump

| Liner Size (in.) | | 6-1/2 | 6 | 5-1/2 | 5 | 4-1/2 |
|----------------------|------------|--------------------|-------|-------|-------|-------|
| Rated Pressure (psi) | | 2,500 | 3,000 | 3,500 | 4,300 | 5,000 |
| Speed (SPM) | Power (HP) | Displacement (GPM) | | | | |
| 140 | 1,000 | 603 | 514 | 432 | 357 | 289 |
| 135 | 976 | 582 | 496 | 417 | 344 | 279 |
| 130 | 940 | 560 | 477 | 401 | 331 | 269 |
| 125 | 904 | 539 | 459 | 386 | 319 | 258 |
| 120 | 867 | 517 | 441 | 370 | 306 | 248 |
| 110 | 795 | 474 | 404 | 339 | 280 | 227 |
| 100 | 723 | 431 | 367 | 309 | 255 | 207 |
| 1 | | 4.31 | 3.67 | 3.09 | 2.55 | 2.07 |

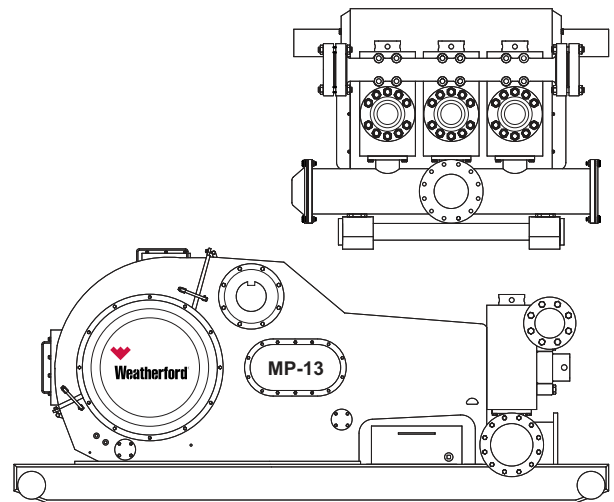


Iron Man™ Series Mud Pumps



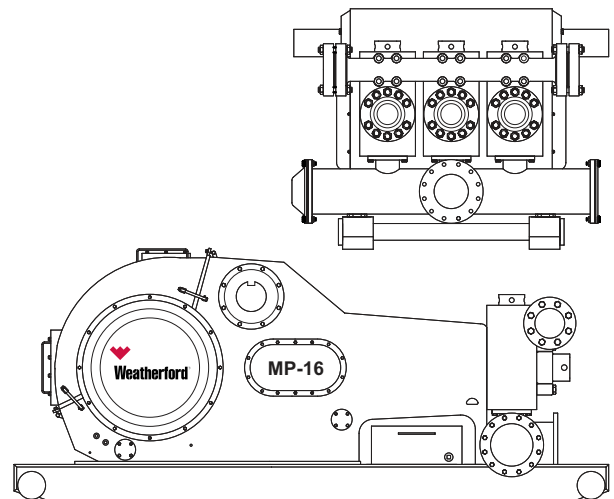
MP-13 Pump

| Liner Size (in.) | | 7 | 6-1/2 | 6 | 5-1/2 | 5 |
|----------------------|------------|--------------------|-------|-------|-------|-------|
| Rated Pressure (psi) | | 2,800 | 3,200 | 3,700 | 4,500 | 5,000 |
| Speed (SPM) | Power (HP) | Displacement (GPM) | | | | |
| 120 | 1,300 | 720 | 621 | 529 | 444 | 367 |
| 115 | 1,252 | 690 | 595 | 507 | 426 | 352 |
| 110 | 1,197 | 660 | 569 | 485 | 407 | 337 |
| 105 | 1,143 | 630 | 543 | 463 | 389 | 321 |
| 100 | 1,088 | 600 | 517 | 441 | 370 | 306 |
| 95 | 1,034 | 570 | 491 | 419 | 352 | 291 |
| 90 | 980 | 540 | 465 | 397 | 333 | 275 |
| 1 | | 6.00 | 5.17 | 4.41 | 3.70 | 3.06 |



MP-16 Pump

| Liner Size (in.) | | 7 | 6-1/2 | 6 | 5-1/2 | 5 |
|----------------------|------------|--------------------|-------|-------|-------|-------|
| Rated Pressure (psi) | | 3,400 | 3,900 | 4,600 | 5,000 | 5,000 |
| Speed (SPM) | Power (HP) | Displacement (GPM) | | | | |
| 120 | 1,600 | 720 | 621 | 529 | 444 | 367 |
| 115 | 1,520 | 690 | 595 | 507 | 426 | 352 |
| 110 | 1,454 | 660 | 569 | 485 | 407 | 337 |
| 105 | 1,388 | 630 | 543 | 463 | 389 | 321 |
| 100 | 1,322 | 600 | 517 | 441 | 370 | 306 |
| 95 | 1,255 | 570 | 491 | 419 | 352 | 291 |
| 90 | 1,189 | 540 | 465 | 397 | 333 | 275 |
| 1 | | 6.00 | 5.17 | 4.41 | 3.70 | 3.06 |



Notes

- Operating speeds and pressures shown in tables represent the maximum allowable service conditions at which these pumps should be operated.
- Flows and displacements are based on operating conditions and condition of the pump equipment.
- Power requirements are based on 90 percent mechanical efficiency.
- Rated pressures are based on standard fluid ends. Optional high pressure fluid ends available for 7,500 PSI services. Contact Weatherford for specific details and performance ratings.

Iron Man™ Series Mud Pumps

Weatherford is building one of the world's leading reciprocating pump organizations by giving you more pump for your money. We build in extra-value features that don't cost extra and give you the lasting value of pump components built for maximum reliability and service life.

And most important of all, our people bring invaluable experience and dedication to your application. They will help you choose from our broad range of pumps and accessories and deliver them to you faster than anyone else in the industry.

Find out how we can redefine your expectation of value. Visit us online at weatherford.com/ironman, or contact us at ironman@weatherford.com.



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