

FIREFIGHTING COMPONENTS & SPARE PARTS



CENTRIFUGAL PUMP HFP 750



No	Q	P
	l/m	bar
1	4146.0	6.05
2	3214.0	10.30
3	1864.0	14.50

Maximum power:
115 HP at 3500 rpm, 11 bar

Maximum pressure:
15 bar

Main features

DIMENSIONS

- Dimensions [L × W × H, mm]: 686 × 460 × 780; Weight [kg]: 82

APPLICATIONS

- Pumper, pumper tanker, tanker, wildland/attack fire

FEATURES

- Rotation: Engine or opposite engine

PERFORMANCE

Suction nozzle size: DIN PN10 150 Flange

Push mouth size: ANSI 4" Flange

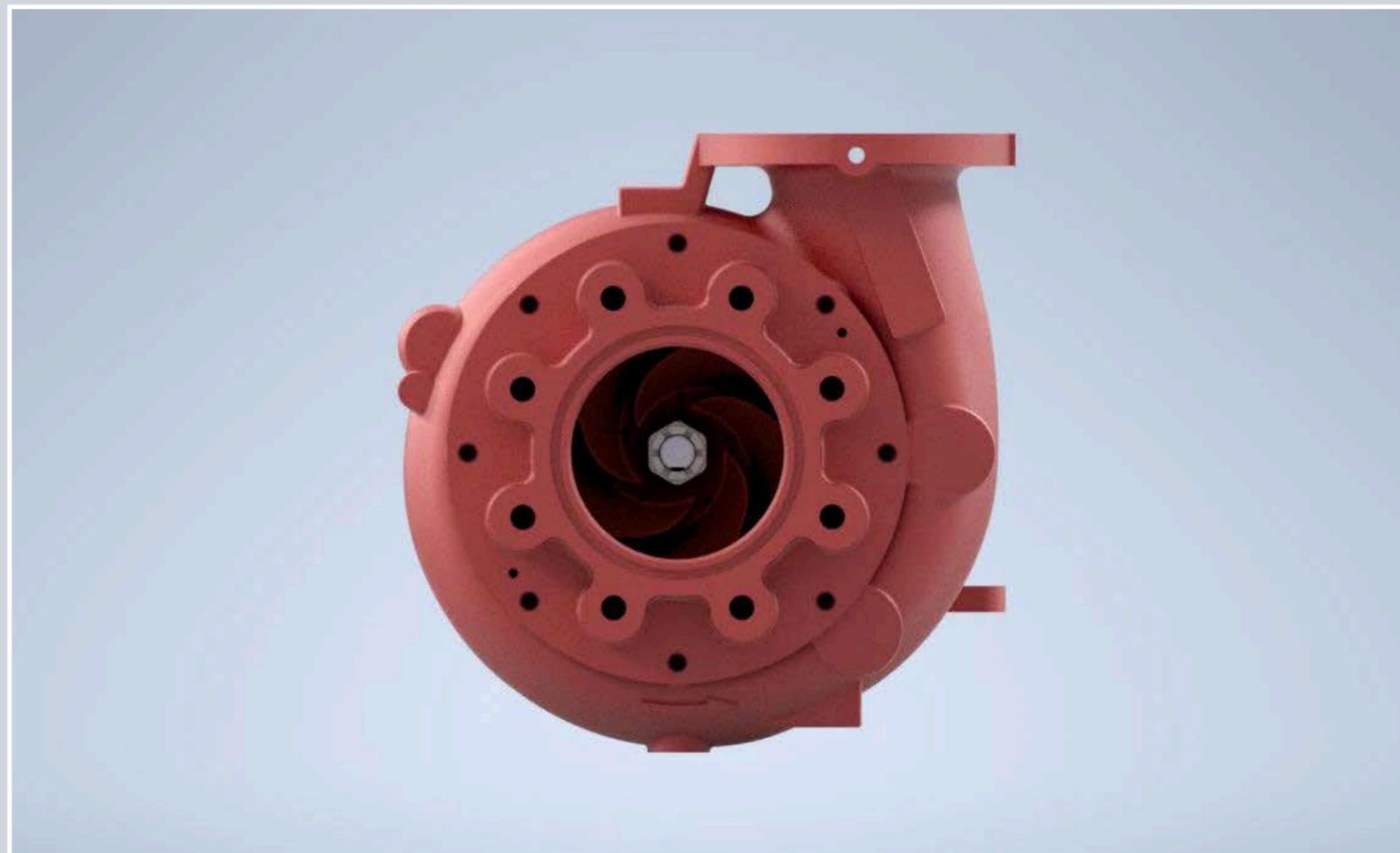
24VDC motor vane priming pump

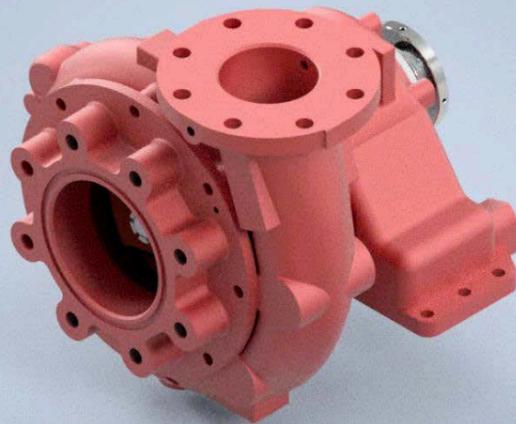
Mechanical seals optimize pump design.

2 copper alloy rims on both sides of the pump impeller help to reduce internal pump leakage and increase the stability of the impeller when rotating at high speed

Pump shaft is made from high mechanical alloy steel, helping to reduce pump size and volume. Splined input joint increases power transmission. The shaft is surface heat treated and precision machined again after heat treatment

Optional 1-stage transmission system with pump head with transmission ratios is selected to suit the drive system of different chassis types. Water circulation cooling by built-in pump body system





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CENTRIFUGAL PUMP HFP 1000

No	Q	P
	l/m	bar
1	4312	6.05
2	3785	10.30
3	2215	14.50

Maximum power:
140 HP at 3600 rpm, 11 bar

Maximum pressure:
15 bar



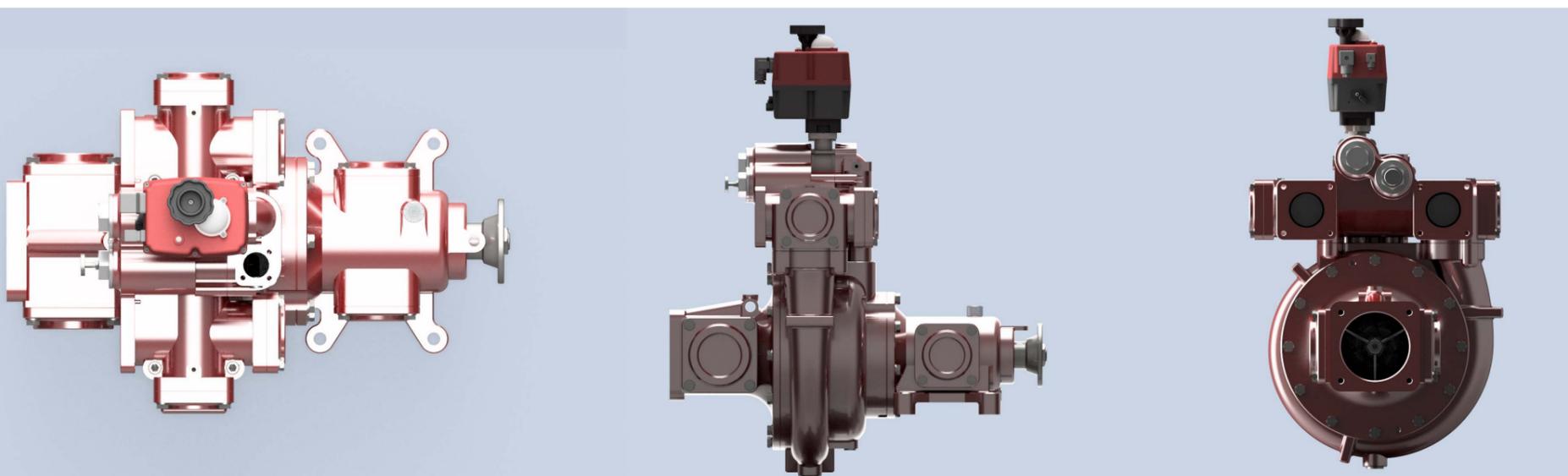
THE TWO-STAGE CENTRIFUGAL PUMP HFP-HL300

No	Flow rate (Q)	Pressure (P)
	L/m	bar
1	Normal pressure stage	
2	3263	4.79
3	3203	6.72
4	3133	8.73
5	3101	9.73
6	3044	11.70
7	2960	13.80
8	2100	15.10
	Medium pressure stage	
9	405	40.05

- Normal pressure stage:**
- Maximum flow rate: approx. 3,000 L/min at 10 bar.
 - Hydraulic power: 75W (100Hp)

- High-pressure stage:**
- Maximum flow rate: approx. 400 L/min at 40 bar
 - Hydraulic power: 45 kW (60Hp)

► The output power of the motor must be at least 120 kW



The two-stage centrifugal pump HFP-HL300 is designed and manufactured by Hiep Hoa Special-Purpose Automobile Joint Stock Company using advanced technology to optimize flow rate, head, and pump efficiency.

Main features

The pump can operate simultaneously in both normal-pressure and medium-pressure ranges, allowing adjustment of medium pressure without affecting the operating pressure and flow of the normal-pressure stage.

Discharge outlet dimensions: both low-pressure and high-pressure stages are arranged on a single manifold integrated with a discharge safety valve.

Priming system: 24VDC vane pump or integrated piston priming pump.

Optional single-stage gearbox: at the pump head, with selectable gear ratios to suit different vehicle chassis drivetrains. Cooling system: water circulation with built-in body design.

Integrated speed sensor: mounted on the impeller shaft.

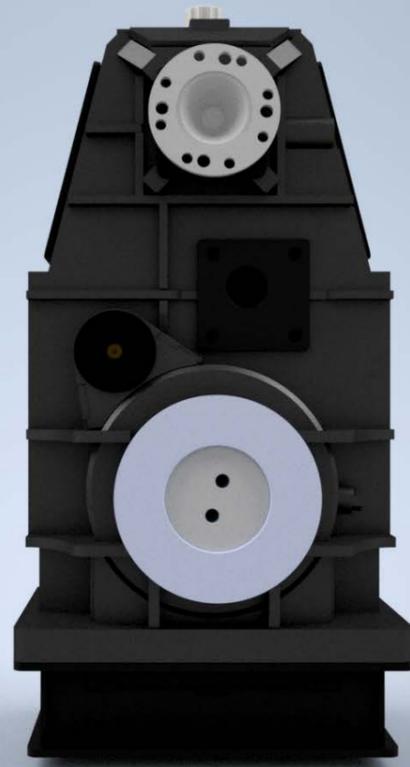
SPECIFICATIONS:

- Dimensions [L × W × H, mm]: 686 × 460 × 780
- Weight [kg]: 82
- Inlet Dimensions: One main suction inlet 5" + two auxiliary inlets with 4" flange connections

Material

- Mechanical seal: optimized for pump design.
- Fire pump impellers: bronze alloy
- High-pressure pipe: CNC-machined high-molecular polymer.
- Pump shaft: high-strength alloy steel
- The shaft undergoes surface heat treatment and precision machining after heat hardening.

SPLIT SHAFT P.T.O.



Materials

- Housing material: Cast iron.
- Gear material: High-strength alloy steel, precisely machined, heat-treated, and surface-hardened. Contact surfaces are ground to ensure smooth and quiet gear operation.
- Support bearings: Sourced from world-renowned manufacturers.
- Differential propeller shaft flange and P.T.O. propeller shaft flange: Machined from a single solid block to eliminate residual stress.

Main Specifications

- Maximum torque on main driveline shaft: 2000 kgm.
- Maximum torque transmitted to P.T.O. shaft: 60 kgm at 3000 rpm.
- Front/rear dual output shafts: Independently interchangeable for mounting either the hydraulic lubrication oil pump or the P.T.O. output flange.
- Maximum rotational speed: 2,200 rpm.
- Gear ratio: 1.562:1
- P.T.O. unit weight (excluding flanges and drive bearings): ~115 kg.
- P.T.O. shaft rotation direction: Same as gearbox output shaft.
- Lubrication system: Independent oil pump ensuring continuous lubrication supply to bearings and meshing gear sets, regardless of drive source.
- Installation position: Mounted on the driveline shaft between the gearbox and the propeller shaft to the rear axle differential.

Optional Equipment

- P.T.O. shaft speed sensor.
- Water-cooling unit.



SANDWICH POWER TAKE OFF PTO



Main Specifications

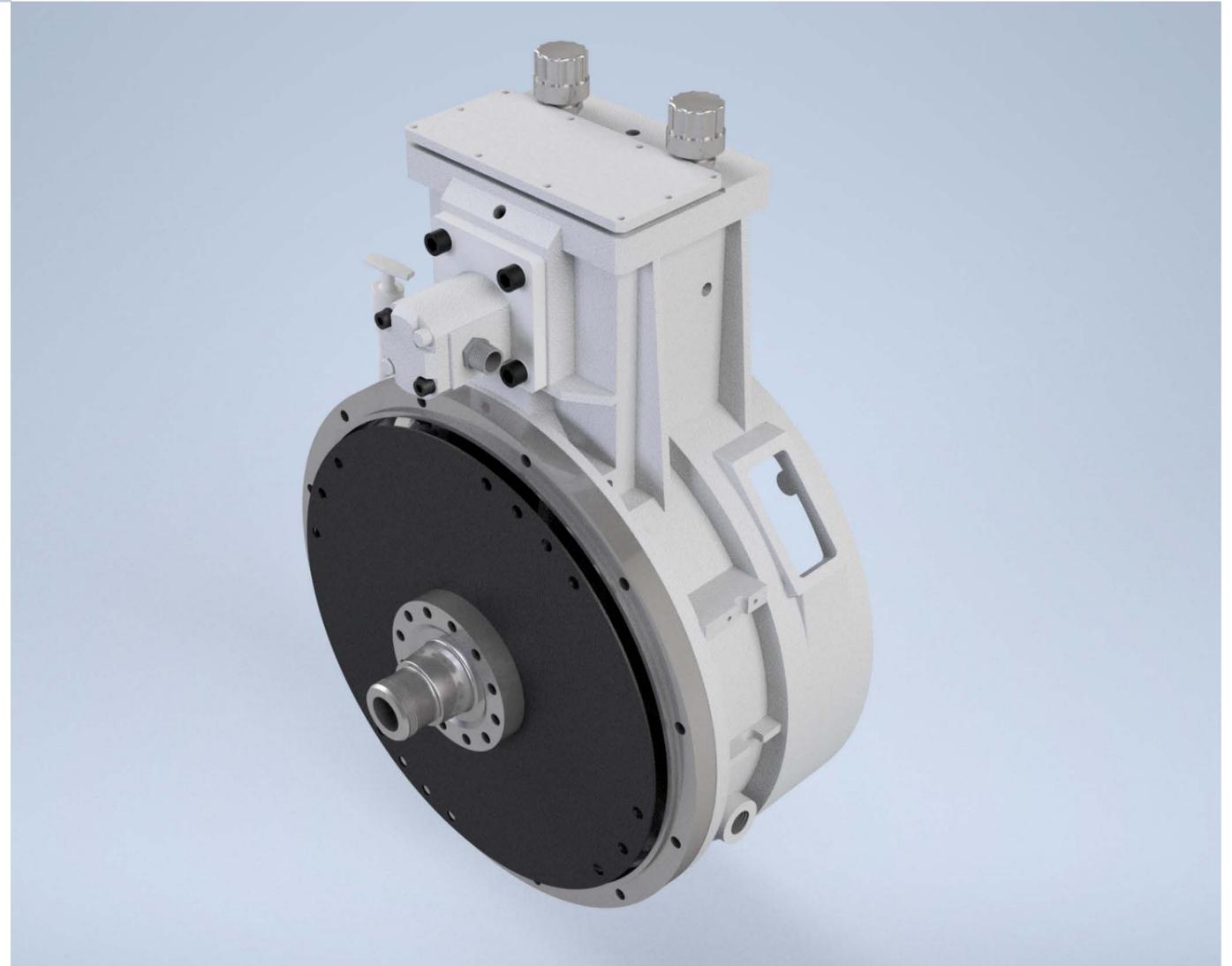
- **Maximum torque / Maximum power transmitted through the main driveline to the rear axle:** ~1,500 N.m / 400 kW.
- **Maximum torque / Maximum power:** 720 N.m / 105 kW / Gear ratio: 1:1,52.
- **Maximum PTO output torque:** 1000 N.m / 157 kW / Gear ratio: 1:1,02.
- The PTO output power is independent of the gearbox. The PTO can operate effectively whether the vehicle is stationary or in a "pump & roll" state (moving while spraying).
- **Standard PTO output position:** at 12 o'clock.
- **Optional PTO output positions:** from 11 o'clock [-30°] to 1 o'clock [+30°].
- **Standard flange for the gearbox and engine:** SAE-2.

The H-PTO102 sandwich-type Power Take-Off (PTO) is designed and manufactured by Hiep Hoa Specialized Vehicle Joint Stock Company using advanced technology to optimize power distribution ability from the chassis engine, thereby enhancing the performance of the specialized mechanism.

The PTO is equipped with an emergency stop function, which is activated by a push button on the pump control panel.

Optional Equipment:

- **Auxiliary PTO output, maximum torque: 250 N.m.**
- **External oil cooler.**
- **Oil level indicator.**
- **Oil cooler display and control unit.**
- **PTO output speed sensor.**
- **Drive Elastic Disc damper.**



FIXED MONITOR HM 345

Main Features

- **Maximum flow:** 3,800 liters/minute at 10.3 bar.
- **2 control modes:** wireless remote control and manual control.
- Self-braking at any position when rotating around the main axis.
- **Suitable for nozzles:** duckbill nozzle NH 3"; FT taper tip 3", FT taper tip 2.5".

Wireless Control

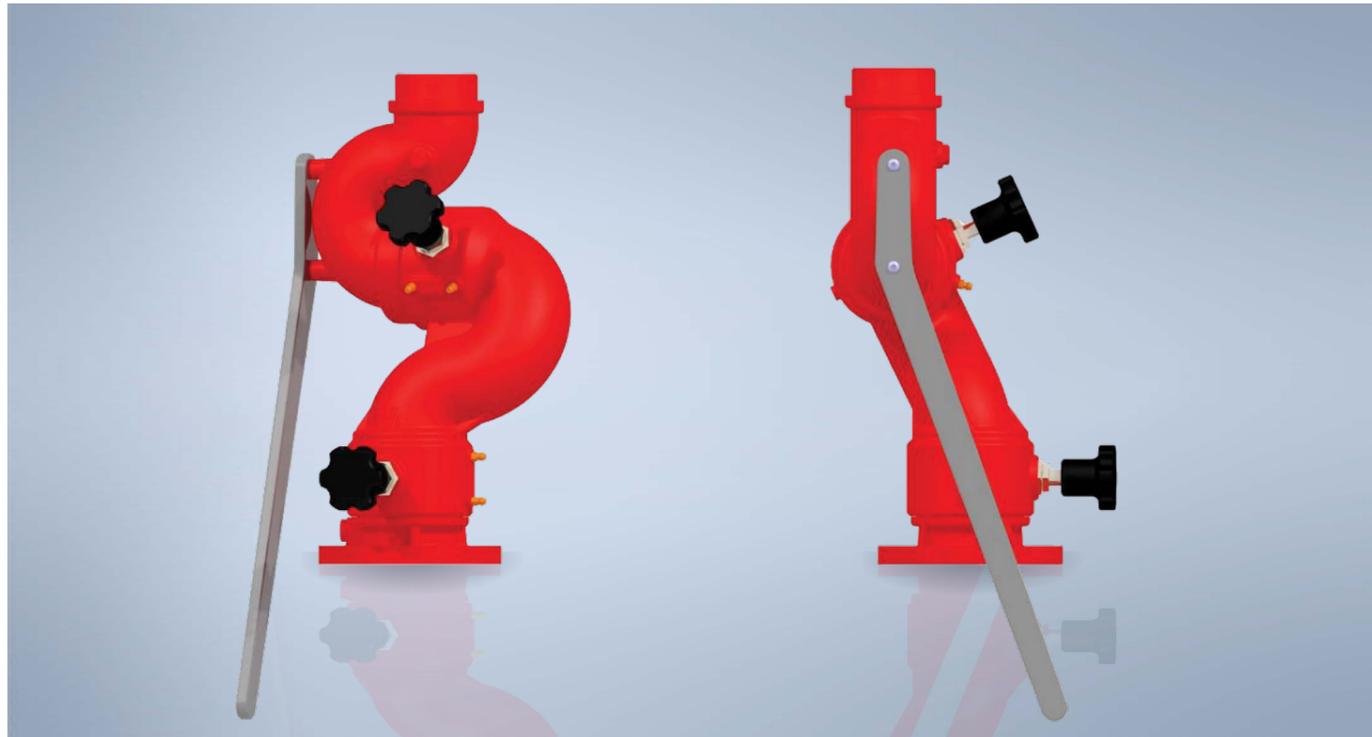
- **Control voltage:** 12VDC or 24VDC.
- **Nominal current:** 5A with fuse and overload protection circuit.
- **Band:** 315/418/429/433/447/470/915 MHz / 2.4GHz. Automatically change frequency when radio interference occurs, high security.
- **Water-resistance level:** IP65.
- **Operating temperature range:** -25oC to +55oC.

Detailed Technical Specifications

- **Input x output:** 3" FF x 2.5" MT.
- **Rotation angle around main axis:** 360o
- **Lifting angle:** -7o to +75o.
- **Material:** Monitor's main material: aluminum alloy, anodized; Other details: stainless steel.
- **Weight:** ~ 20 kg.



HM-235 MANUAL OPERATION TYPE



Description

- Appear in an S-shape, the HM-235 monitor can be operated manually by using the operation lever mounted on the monitor.
- The monitor is designed to be operated horizontally and vertically.
- The monitor is user-friendly as users can operate the monitor with little force even if there is pressure inside it.
- The monitor is coated with urethane paint to resist corrosion.
- The position of the monitor can also be locked by the monitor lever lock when operating the monitor.
- The monitor can be rotated 360 degrees horizontally, and up to +90 degrees and down -40 degrees vertically.
- The monitor is lightweight and can be installed easily since the main material is aluminum.

Technical Specifications

- **TYPE** : MANUAL OPERATION TYPE
- **MODEL NO.** : HM-235
- **OPERATING RANGE** : ROTATION: 360°; ELEVATION: -40° ~ +90°
- **WORKING / TEST PRESSURE** : 1.5Mpa / 2.0Mpa
- **MATERIAL (BODY)** : AL / BRONZE
- **SURFACE FINISHED** : FIRE RED (URETHANE COAT)
- **INLET FLANGE SIZE** : ANSI #150 2-1/2"
- **OUTLET SIZE** : FE65(M) / NH 2-1/2"(M)
- **APPLICATION NOZZLE** : HM-6N ETC.

