

General Description

Series 910N hand pumps are double-acting with needle valve providing primary, backup or emergency hydraulic power. Series 910N incorporates a cartridge needle valve that provides an easy method of bleeding an actuator or system back to tank. The hand pumps can be utilized anywhere; at any time, that hydraulic power is required, since the hand pump does not require an electrical or mechanical power source. They can be mounted in any position.

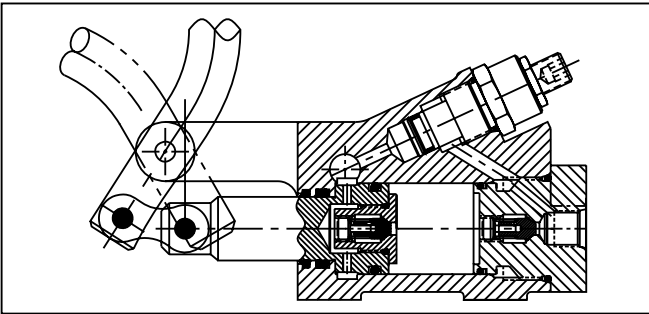
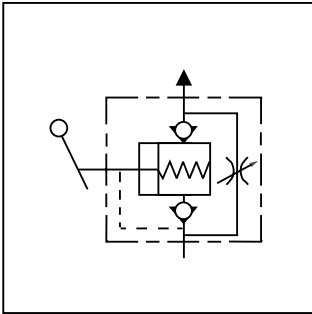
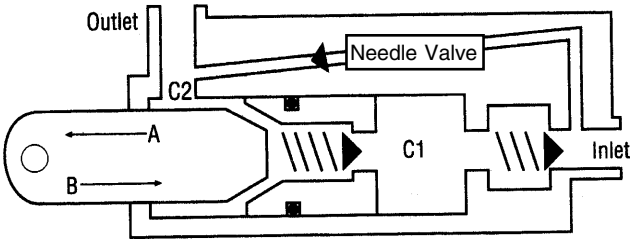
Operation

Piston Stroke — Direction A

Chamber C1 draws in fluid through INLET while chamber C2 discharges fluid through OUTLET.

Piston Stroke — Direction B

Volume in chamber C1 is transferred to chamber C2. Since chamber C2 holds half the volume of chamber C1, half of the fluid in chamber C1 is discharged through the OUTLET port.



Features

- Lightweight, double-acting hand pump delivers 33 cc (2 cu. in.) per cycle, 2 strokes.
- Needle valve cartridge is a dependable, proven component that will allow the bleed-off of a circuit back to tank.
- Provides long maintenance-free service for any application where auxiliary hydraulic power is required.

Specifications

Operating Pressure Range	0 to 103 Bar (1500 PSI) 1500 PSI based on 29 kg (64 lbs.) handle force at 578 mm (22.75 in.) handle/arm length	Materials: Body	Aluminum alloy
		Piston Handle Extension	Steel
Displacement	33 cc (2 cu. in.) per cycle 2 strokes	Poppets	Stainless steel type 303
Operating Temperature Range		Springs	Stainless steel Type AMS5688
Operating Arc	60°	O-Rings	Synthetic rubber
Fluids		Backup Rings	PTFE
Sizes	IST 6, IST 8	Scraper	Synthetic rubber
Type Ports		Molded Seal	Synthetic rubber
Mounting	Flanges (4) with 7 mm dia. (.281 in. dia.) holes	Handle	Extension furnished 508 mm (20 in.) long. Total 578 mm (22.75 in.)
		Needle Valve Cartridge	Steel

Ordering Information

910N

Hand Pump with Needle Valve

Size and Type

Code	Description
6	IST* port
8	IST* port

* IST, military straight thread port, SAE compatible.

D

Materials

Code	Description
D	Aluminum Alloy

2

O-Ring

Code	Description
2	Nitrile

B

Discharge Port Location

Code	Description
B	Both Sides*

* Note: one port to be plugged at installation.

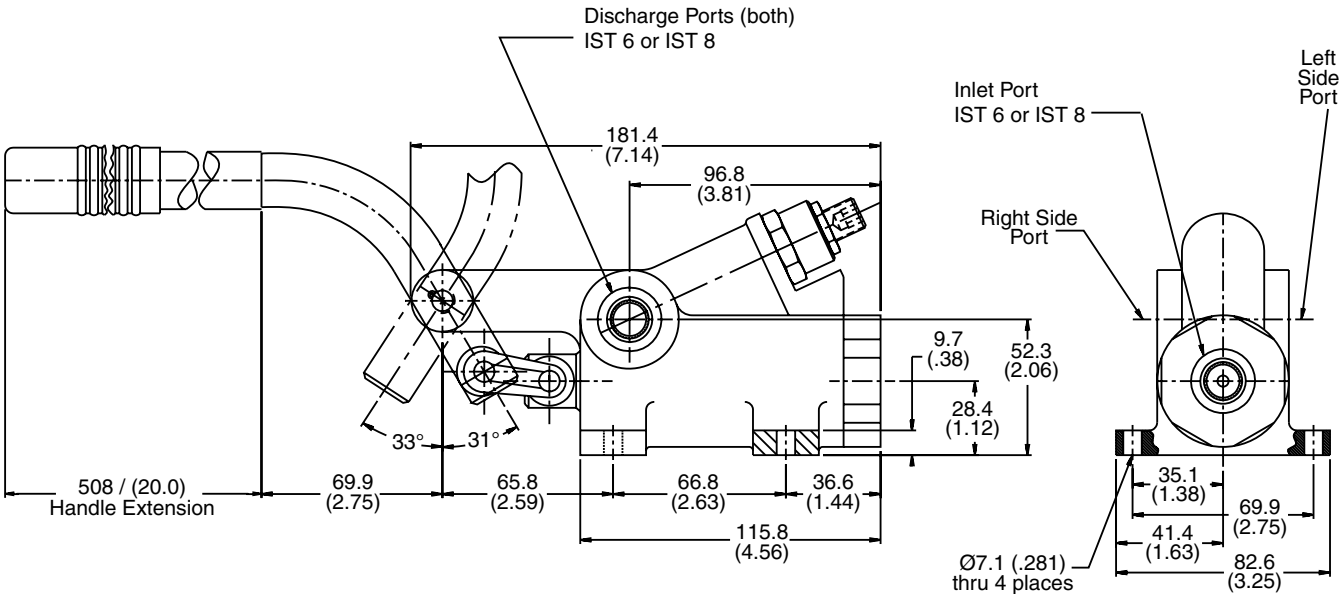
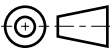
C

Design Series

Weight: 2.7 kg (6 lbs.)

Dimensions

Inch equivalents for millimeter dimensions are shown in (**)



General Description

Series 910R hand pumps are double-acting with relief valve providing primary, backup or emergency hydraulic power. Series 910R incorporates a cartridge relief that provides a smooth, quick unloading of the pump should the system become overloaded. The hand pumps can be utilized anywhere; at any time, that hydraulic power is required, since the hand pump does not require an electrical or mechanical power source. They can be mounted in any position.

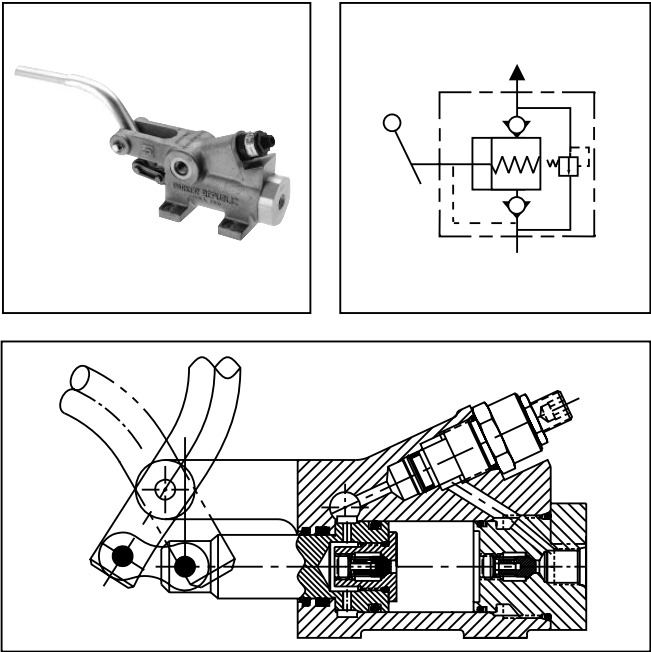
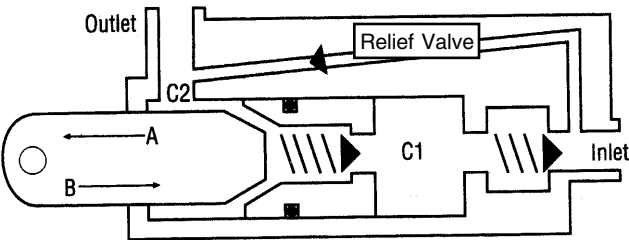
Operation

Piston Stroke — Direction A

Chamber C1 draws in fluid through INLET while chamber C2 discharges fluid through OUTLET.

Piston Stroke — Direction B

Volume in chamber C1 is transferred to chamber C2. Since chamber C2 holds half the volume of chamber C1, half of the fluid in chamber C2 is discharged through the OUTLET port.



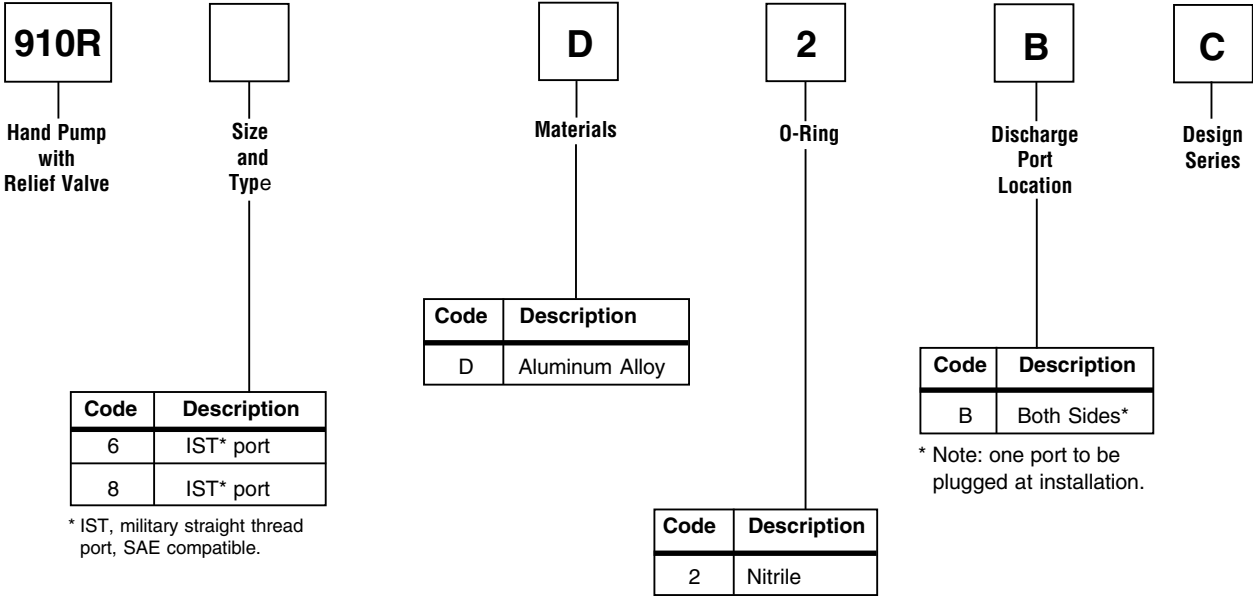
Features

- Lightweight, double-acting hand pump delivers 33 cc (2 cu. in.) per cycle, 2 strokes.
- Relief valve cartridge is a dependable, proven component that will protect any circuit from over pressurizing and adjustable from 6.8 to 103 Bar (100 to 1500 PSI).
- Provides long maintenance-free service for any application where auxiliary hydraulic power is required.

Specifications

Operating Pressure Range	0 to 103 Bar (1500 PSI) 1500 PSI based on 29 kg (64 lbs.) handle force at 578 mm (22.75 in.) handle/arm length	Materials: Body	Aluminum alloy
		Piston Handle Extension	Steel
Displacement	33 cc (2 cu. in.) per cycle 2 strokes	Poppets	Stainless steel type 303
		Springs	Stainless steel Type AMS5688
Operating Temperature Range	-40°C to 121°C (-40°F to 250°F)	O-Rings	Synthetic rubber
Operating Arc		Backup Rings	PTFE
Fluids	Hydraulic oil	Scraper	Synthetic rubber
Sizes		Molded Seal	Synthetic rubber
Type Ports	IST	Handle	Extension furnished 508 mm (20 in.) long. Total 578 mm (22.75 in.)
Mounting		Relief Valve Cartridge	Steel

Ordering Information



Weight: 2.7 kg (6 lbs.)

Dimensions

Inch equivalents for millimeter dimensions are shown in (**)

