

Manual Plunge Freeze Apparatus Parts List

Part No.	Name	Material	Quant	Dimmensions				Comments
01	Main Block	Aluminum	1	1.5" by 4" by 6"				Machined
02	Pedal Base	Aluminum	1	0.5" by 3.5" by 5"				Machined
03	Pedal Base Upright	Aluminum	1	0.5" by 1.5" by 2.5"				Machined
04								
05	Pedal	Aluminum	1	0.5" by 1.5" by 4.25"				Machined
06	Barrel Adjuster	Steel	1	thread: 5/16-24 length:2" (38mm) drilled for: 0.268" (6.8mm) ferrule, 7/16" hex head and 7/16" hex nut.				
07	Pedal Upright	Aluminum	1	0.5" by 1.5" by 1.8125"				Machined
08	Pivot Block	Aluminum	2	0.5" by 0.75" by 1"				Machined
09	Base Plate	Aluminum	1	0.5" by 10" by 10"				Machined
10*	Fine Adjust Screw	Steel or Stainless Steel	1	1/2-20 by 3"				
11	Stop Collar	Stainless Steel	1	1/2" ID by 1" OD by 7/16" thick, with set screw 1/4-20				Alternative to machined part and thumbscrew
13*	Fine Adjust Block	Aluminum	1	1" by 1.5" by 3.375"				Machined

Part No.	Name	Material	Quant	Dimmensions				Comments
14*	Screw, Socket Head Cap	Stainless Steel	1	8-32 by 0.75"				Machined
15	Support Rod	Stainles Steel	1	1" OD by 20"				Machined
16	Plunge Rod	Stainless Steel	1	0.5" by 9"				Machined
17								
18								
19	Holding Block	Aluminum	1	1" by 1.125" by 3"				Machined
20	Holder Lever	Brass	1	5/16" by 1 3/4" by 3"				Machined
21	Latch Actuating Pin	Brass	1	1/4" by 1.05"				Machined
22	Locating Pin	Stainless Steel	2	1/8" by 1"				
23a	Control Cable	Steel	2	0.080" (2mm) wire OD by 2 meters				
23b	Control Cable Conduit	Steel, coated, nylon lined	1	O.D 0.233" (6mm), I.D. 0.098" (2.5mm)				
23c	Ball End, solder on	Brass	2	Drilled for 0.080" (2mm) wire, O.D 0.250" (6.35mm)				Foot Pedal End
23d	Ferrule, conduit	Brass	1	drilled for: 0.100" (2.5mm) wire and 0.235" (6mm) conduit O.D.: 0.265" (6.7mm), length: 0.430" (11mm)				Foot Pedal End

Part No.	Name	Material	Quant	Dimmensions				Comments
23e	Ferrule, conduit, stepped	Brass	1	drilled for 0.100" (2.5mm) wire and 0.235" (6mm) conduit, O.D. 0.281" (7.1mm), length 0.660" (16.8mm), minor diameter 0.182" (4.6mm)				Main Body End
23f ‡	Screw, Cable Fixing	Stainless Steel	1	10-32 by 1/2"				Latch End
24	Foot Pedal Spring	Steel	1	1.5" length, 0.60" OD, 0.045" Wire				
25	Spring, Holding Lever	Steel	1	0.625" length, 0.24" OD, 0.032" wire				
26	Linear Bearing	Stainless Steel	2	0.5" ID by 1.25" length				Closed
26a	Linear Bearing Clips	Stainless Steel	2	1.15" ID by 0.042" thick				External, Type W
27*	Ball	Stainless Steel	1	3/8" diam.				
28*, 29	Adjustable Clamping Handle	Steel/Fiber glass filled plastic	2	1/4-20 by 1"				
30	Pivot Rod	Stainless Steel	2	0.1875" by 1"				
31	Shoulder Screw	Steel	1	1/4" by 5/8" by 10-24 thread				

Part No.	Name	Material	Quant	Dimmensions				Comments
32‡‡	Damping Washer	Polyurethane	1	1.5" OD by 0.5" ID by 0.5" thick, 30 Durometer				Could be considered consumable.
33	Dewar Jig	Acrylic	1	5" by 5.5"				Machined
34	Dewar Jig Clamp	Aluminum	1	1.5" diameter				Machined
35	Adjustable Clamping Handle	Steel/Fiber glass filled plastic	1	10-32 thread, 1.18" stud, 0.51" hub				
foot pedal	Cap Head Screw	Stainless Steel	2	10-32 by 1/4"				
foot pedal	Cap Head Screw	Stainless Steel	4	10-32 by 1"				
foot pedal	Set Screw	Stainless Steel	2	10-32 by 1/4"				
base	Cap Head Screw	Stainless Steel	1	1/4-20 by 1"				
head	Cap Head Screw	Stainless Steel	2	10-32 by 0.75"				
dewar jig	Clamp Screws	Plastic/Steel	2	1/4-20 by 1"				
washers	Washers	Stainless Steel	4	1/4" by 5/8" OD by 0.045" thick				

Notes:

* = These parts are for the fine adjust mechanism, which is seldom used in practice.

‡ = Using this part requires changing the holding lever, making it longer and tapping a hole.

‡‡ = Substitute for rubber o-ring.