



CNG Time Fill Post



Revision date: June 1, 2016

FASTECH TFP System

The FASTECH Time Fill Post (TFP) for CNG fueling is a two-part assembly consisting of a pressure manifold base section together with a vent riser which allows for installation flexibility, modular assembly and significant reduction in the number of fittings. High pressure CNG inlet supply is distributed to four hose connection points via an internal manifold – unused fueling positions are plugged. CNG hose vent return connection points are manifolded together and discharged through a vent cap at the top of the riser section. Each fueling position has a hose retractor assembly attached to the top of the riser section. The retractor cord is attached to the CNG hose with a patented retractor breakaway unit which, together with the hose breakaway fittings, prevents damage to the TFP assembly in the event of a vehicle drive-off.

The TFP riser is attached to the manifold section with (4) bolts and sealed with (2) o-rings. The assembly is mounted to a concrete caisson, k-rail base or wall mount bracket with (4) anchor bolts. Note the mounting base is configured with (8) mounting holes which allows the TFP to be rotated 45 degrees in cases where the parking stall is at a diagonal angle.

The modular design allows the TFP to be shipped in kit form which can be easily assembled on site. The ports on the TFP are labeled as follows: (4) sets of CNG and vent hose connection ports, (3) CNG supply ports (two on side of TFP, one on bottom), (3) instrument connection ports for pressure gage and bleed valve, etc.

The TFP can be mounted to either a concrete caisson, precast K-rail or wall mount. For caisson installations, the CNG supply line from the compressor is typically stubbed up within the caisson with a branch connection to the TFP with another stub for the CNG supply line to the adjacent TFP. An optional TFP inlet connection kit is available which includes a branch tee and elbow for 3/4" and 1" CNG tubing, reducer fittings to 3/8" tubing, 3/8" ball valve (isolation valve for the TFP), compression fittings and pre-bent tubing sections. Also available is the connection kit for the last TFP in the line which only requires single connection point (no tee required). For caisson mounting, an anchor bolt kit is available which includes the anchor rods, nuts, reaction plate and mounting template.

For K-rail installations, a mounting kit is available which consists of a bracket for mounting to a typical 6" width precast angle face impact barrier and necessary anchor bolts (bracket to K-rail) and 5/8" bolts and nuts for attaching TFP manifold base. The mounting bracket is a two-piece 1/4" steel plate assembly with each half anchored to the face of the K-rail. One bracket is configured with holes; the other with slots to allow for variations in the width of the K-rail and the height of the bracket relative to the K-rail. The K-rail bracket is elevated above the K-rail to allow for supply CNG tubing to run under the assembly if required. An inlet connection kit available consisting of either a 1/2", 3/4" or 1" compression tee fitting, 3/8" isolation ball valve and a pre-bent tubing sections.

For wall mount installations, the TFP manifold base is bolted to an angle bracket with the vent riser attached to riser support assembly. The base bracket is bolted directly to the wall surface; the riser support is attached to stand-off anchors which allow for variations in the wall surface. For this type of installation, the bottom CNG supply is utilized on the TFP manifold.

The TFP system can be supplied with several different hose and nozzle configurations typical for time fill applications. Refer to the nozzle and hose specification sheet for configuration and ordering information. When not in use, the nozzle is stored on a anodized aluminum nozzle docking port bolted to the side of the TFP unit.

Each fueling point is configured with a hose retractor reel assembly consisting of a spring retractor, cable and retractor reel cord stop. The retractor housing is bolted to the vent riser pipe and allows for up to 10 feet of cord travel. The retractor reel unit has a removable cover to for installation and cord replacement. A bolt is used to lock the retractor reel in place for service.

A patented retractor breakaway assembly is attached to the CNG hose at the optimal location on the hose to minimize hose ground contact. A rubber insert is used to secure to the nylon breakaway assembly to the CNG hose to prevent stress or pressure points on the CNG hose. Rubber inserts are available for common size Parker CNG Twinline CNG hoses. The decoupling force of the retractor breakaway is approximately 100 to 125 pounds while the unit can be easily reset by hand without any tools.

The retractor breakaway allows the retractor cord to be attached anywhere on the CNG fueling hose. Even with the hose breakaway fittings located on the vehicle side of the retractor cord attachment point, there is a possibility the retractor hose connection may extend and damage the TFP riser before the breakaways detach with the vehicle.

Specifications:

- Material: 304 stainless (opt. zinc plated steel)
- MWP: 5,000psi
- Manifold pressure section tested > 20,000 psi
- Manifold and riser: minimum of 2 3/8" diameter
- Manifold central internal passageway: 1/2 inch diameter
- Manifold supply branch connection passageway: 3/8 inch diameter
- Manifold hose branch connection passageway: 1/4 inch diameter
- Fueling Positions: 4
- CNG and vent hose connections: (4) SAE J1926 ORB -04
- CNG supply, side connections: (2) SAE J1926 ORB -06
- CNG supply, bottom connection: (1) SAE J1926 ORB – 08
- CNG supply, instrument connections: (3) 1/4" FNPT
- Internal manifold vent port: 3/8" NPT
- Manifold base ground connection: 1/4"-20
- Nozzle docking ports: NGV1 (others available)
- Bleed valve: Hoke 6610M2Y or equivalent
- Pressure gage: 0-6000 psi, 2.5" diameter, 1/4" NPT
- Base: (8) 3/4 inch diameter holes, 5 inches on center
- Caisson mounting: (4) 5/8" inch anchors
- K-Rail mounting: (8) 5/8"-11 bolts, (4 for manifold base, 4 for two piece k-rail bracket), (8) 3/8" concrete anchors to k-rail face
- Wall mount: (4) 5/8"-11 bolts to bracket, (4) 3/8" concrete anchors for bracket to wall, (2) 3/8" concrete anchors for riser bracket to wall
- TFP length (base to top of vent): 92 inches
- Overall installed height (on k-rail with bracket): 126 inches
- Supplied in kit form or fully assembled.

Ordering Information:

FTFP-A-BBB-C-D-E-F-G

FTFP: FASTECH TFP

A: Number of fueling positions: 0, 1, 2, 3 or 4

BBB: CNG Parker Twinline 5CNG-6/-4 hose assembly, length in inches
000 = no hose supplied with TFP
(example 144 = 12 ft total hose assembly)

C: Nozzle Type:
0 = no nozzle supplied
1 = NGV1, Type 2
2 = other

D: Number of hose retractor units and cord breakaways: 0, 1, 2,3 or 4

E: C = Caisson mount (no K-Rail bracket included)
K = K-Rail mount bracket included
W = Wall mount bracket included

F: Manifold and riser material
S = stainless steel
Z = zinc plated steel (opt.)

G: K = shipped in kit form
A = shipped assembled

Example: FTFP-2-180-1-2-K-S-A
FASTECH TFP, 2 fueling positions, 15 ft hose, NGV1, type 2 nozzle, 2 retractor and breakaway units, K-Rail mount bracket, stainless steel, shipped assembled.

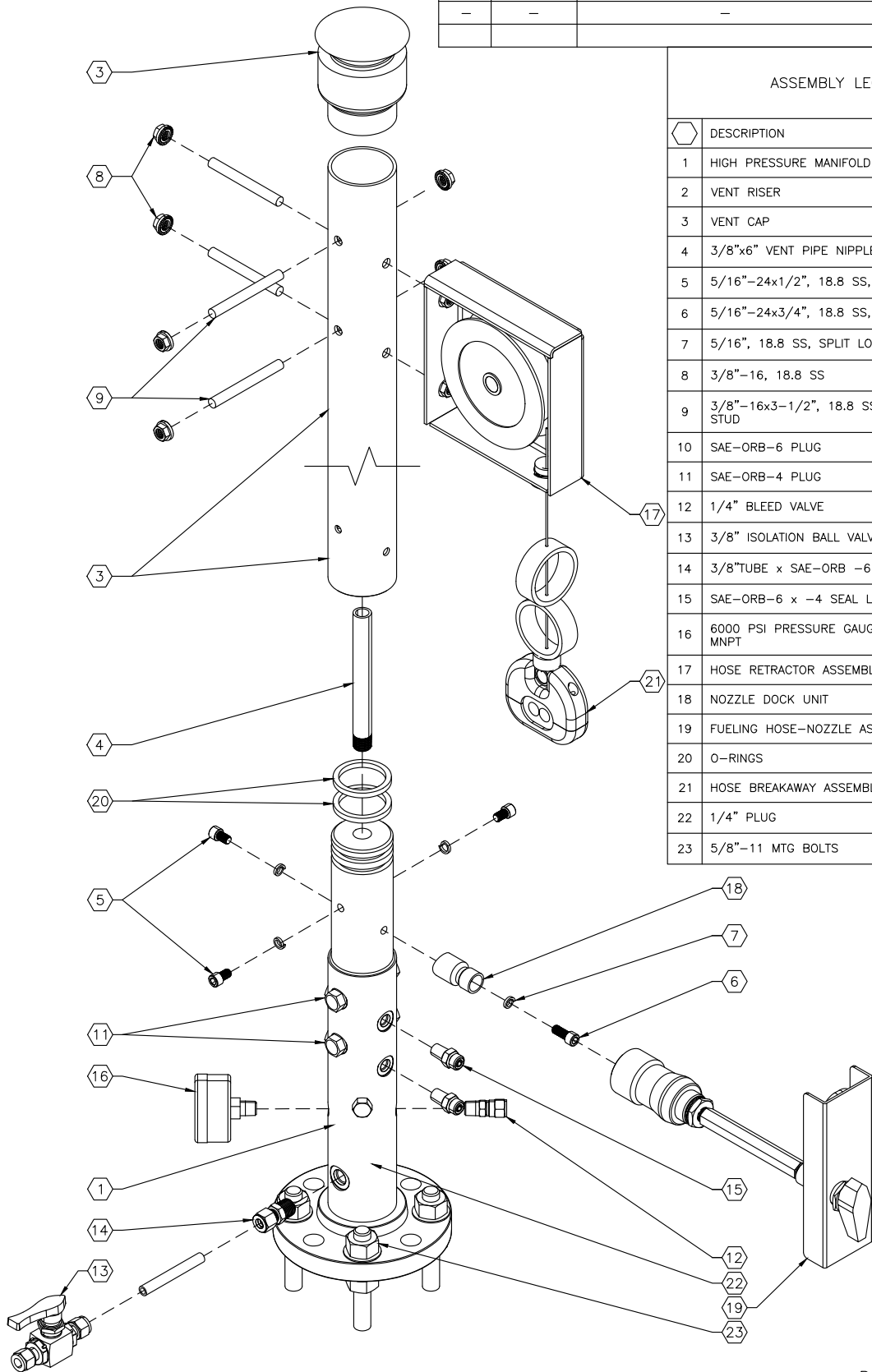
Drawings:

1. TFP-EAV001 Exploded Assembly View
2. TFP-SEC001 Section View
3. TFP-CAI002 Caisson Elevation
4. TFP-KRI003 K-Rail Elevation
5. TFP-KRI001 K-Rail Installation Detail
6. TFP-WMB001 Wall Mount Bracket Detail
7. TFP-CAI001 Caisson Options
8. TFP-KRI002 K-Rail Options
9. TFP-RCB-001 Retractor Cord Breakaway Assembly
10. TFP-RCB-002 Retractor Cord Breakaway Assembly Exploded

AutoCAD files of drawings available on request

Stamped engineering drawings of Time Fill Post concrete caisson foundations available on request

REV	DATE	DESCRIPTION OF REVISION	BY	APP
-	-	-	-	-



ASSEMBLY LEGEND	
DESCRIPTION	
1	HIGH PRESSURE MANIFOLD
2	VENT RISER
3	VENT CAP
4	3/8"x6" VENT PIPE NIPPLE
5	5/16"-24x1/2", 18.8 SS, SHCS BOLT
6	5/16"-24x3/4", 18.8 SS, SHCS BOLT
7	5/16", 18.8 SS, SPLIT LOCK WASHER
8	3/8"-16, 18.8 SS
9	3/8"-16x3-1/2", 18.8 SS, FULL THREAD STUD
10	SAE-ORB-6 PLUG
11	SAE-ORB-4 PLUG
12	1/4" BLEED VALVE
13	3/8" ISOLATION BALL VALVE (TUBEXTUBE)
14	3/8" TUBE x SAE-ORB -6 ADAPTOR
15	SAE-ORB-6 x -4 SEAL LOK ADAPTOR
16	6000 PSI PRESSURE GAUGE, 2.5" DIAL, 1/4" MNPT
17	HOSE RETRACTOR ASSEMBLY
18	NOZZLE DOCK UNIT
19	FUELING HOSE-NOZZLE ASSEMBLY
20	O-RINGS
21	HOSE BREAKAWAY ASSEMBLY
22	1/4" PLUG
23	5/8"-11 MTG BOLTS

PATENT PENDING



FUELING & SERVICE TECHNOLOGIES, INC
7050 VILLAGE DR., SUITE D, BUENA PARK, CA 90621

EXPLODED ASSEMBLY VIEW

FASTECH TIME FILL POST

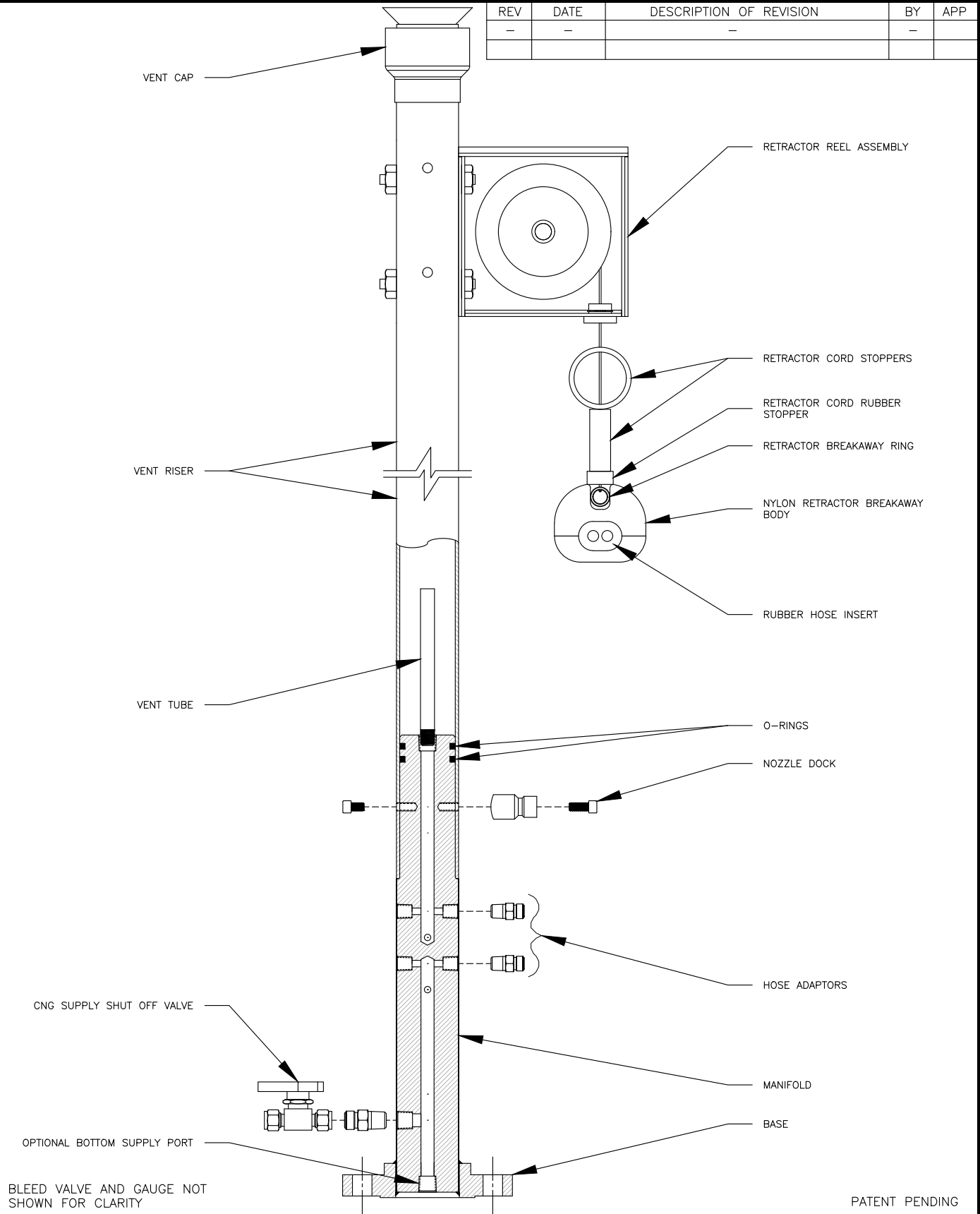
DATE:
5/25/2016

DRAWN:
RF

-

TFP-EAV001

REV	DATE	DESCRIPTION OF REVISION	BY	APP
-	-	-	-	-



FASTECH

FUELING & SERVICE TECHNOLOGIES, INC
 7050 VILLAGE DR., SUITE D, BUENA PARK, CA 90621

SECTION VIEW

FASTECH TIME FILL POST

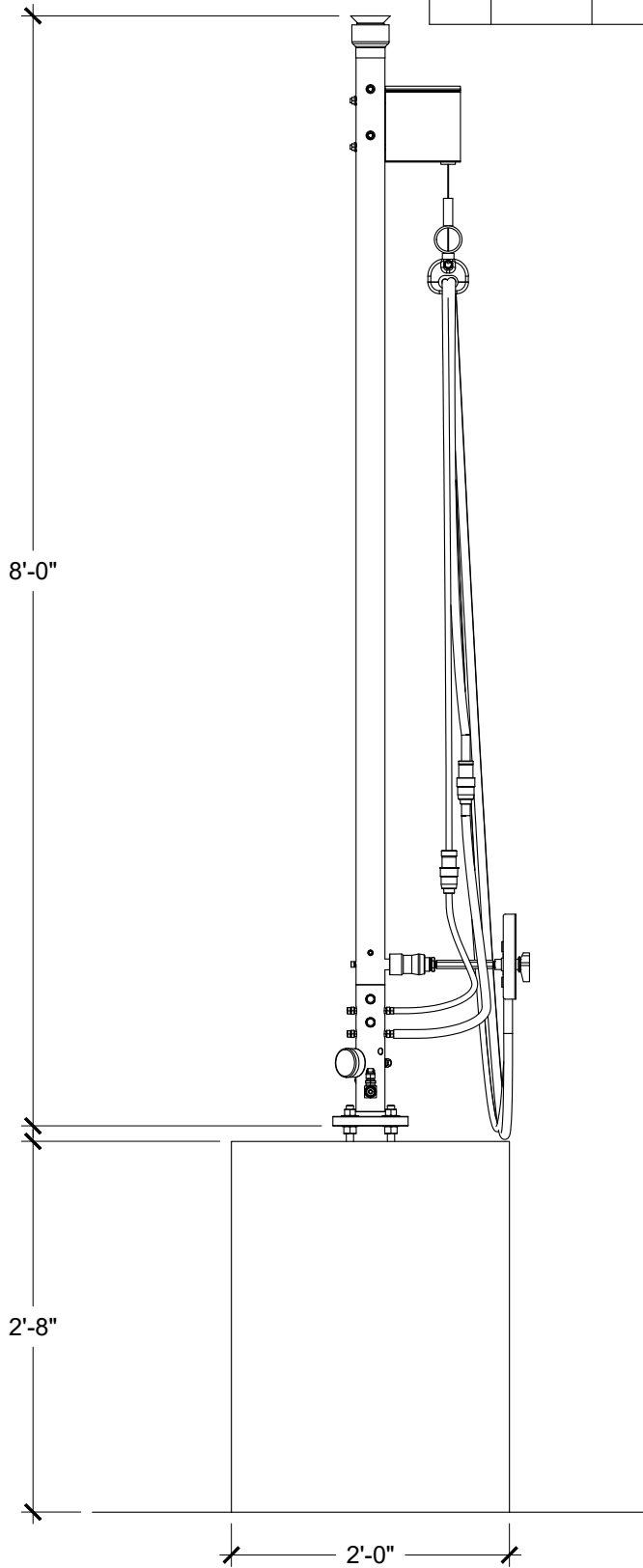
DATE:
5/25/2016

DRAWN:
RF

-

TFP-SEC001

REV	DATE	DESCRIPTION OF REVISION	BY	APP
-	-	-	-	-



PATENT PENDING



FUELING & SERVICE TECHNOLOGIES, INC
 7050 VILLAGE DR., SUITE D, BUENA PARK, CA 90621

CAISSON ELEVATION

FASTTECH TIME FILL POST

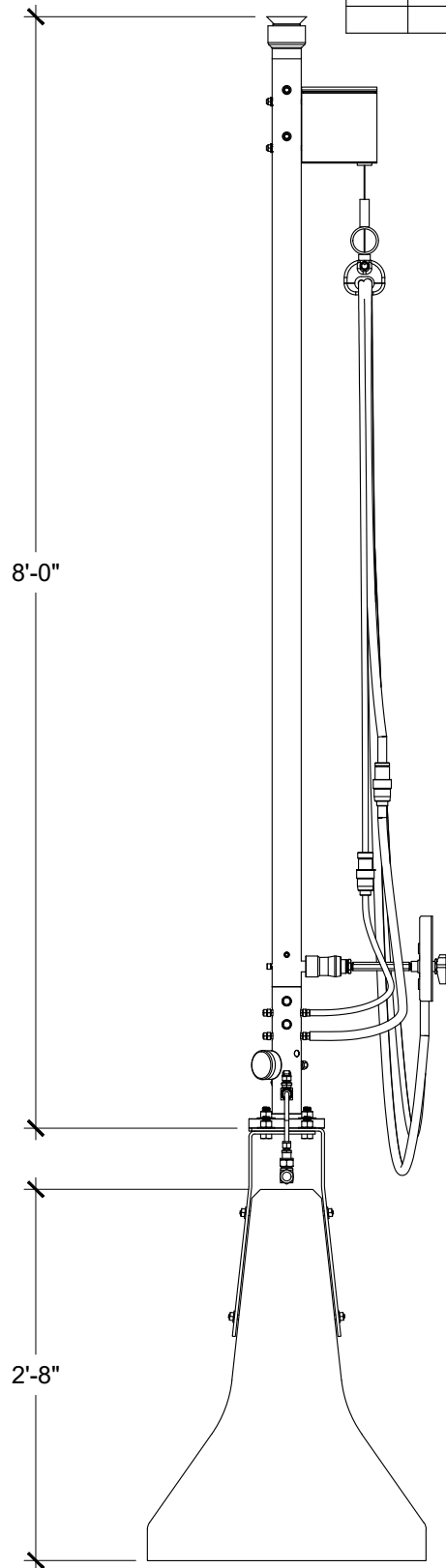
DATE:
5/25/2016

DRAWN:
RF

-

TFP-CAI002

REV	DATE	DESCRIPTION OF REVISION	BY	APP
-	-	-	-	-



STANDARD 6" CALTRANS K-RAIL SHOWN, OTHER OPTIONS AVAILABLE

PATENT PENDING



FUELING & SERVICE TECHNOLOGIES, INC
7050 VILLAGE DR., SUITE D, BUENA PARK, CA 90621

K-RAIL ELEVATION

FASTECH TIME FILL POST

DATE:
5/25/2016

DRAWN:
RF

-

TFP-KRI003

REV	DATE	DESCRIPTION OF REVISION	BY	APP
-	-	-	-	-

2 FUELING
POSITIONS
SHOWN

(4) 5/8"Ø BOLTS FOR TFP
MANIFOLD

(8) HOLES IN MANIFOLD
BASE ALLOW ANY 45°
MOUNTING POSITION

SIDE A

(4) 5/8"Ø BOLTS FOR
K-RAIL BRACKET

SUPPLY LINE

SIDE B

(4) 3/8"Ø MOUNTING
ANCHOR BOLTS PER SIDE

PATENT PENDING

FASTTECH

FUELING & SERVICE TECHNOLOGIES, INC
7050 VILLAGE DR., SUITE D, BUENA PARK, CA 90621

K-RAIL INSTALLATION DETAIL

FASTTECH TIME FILL POST

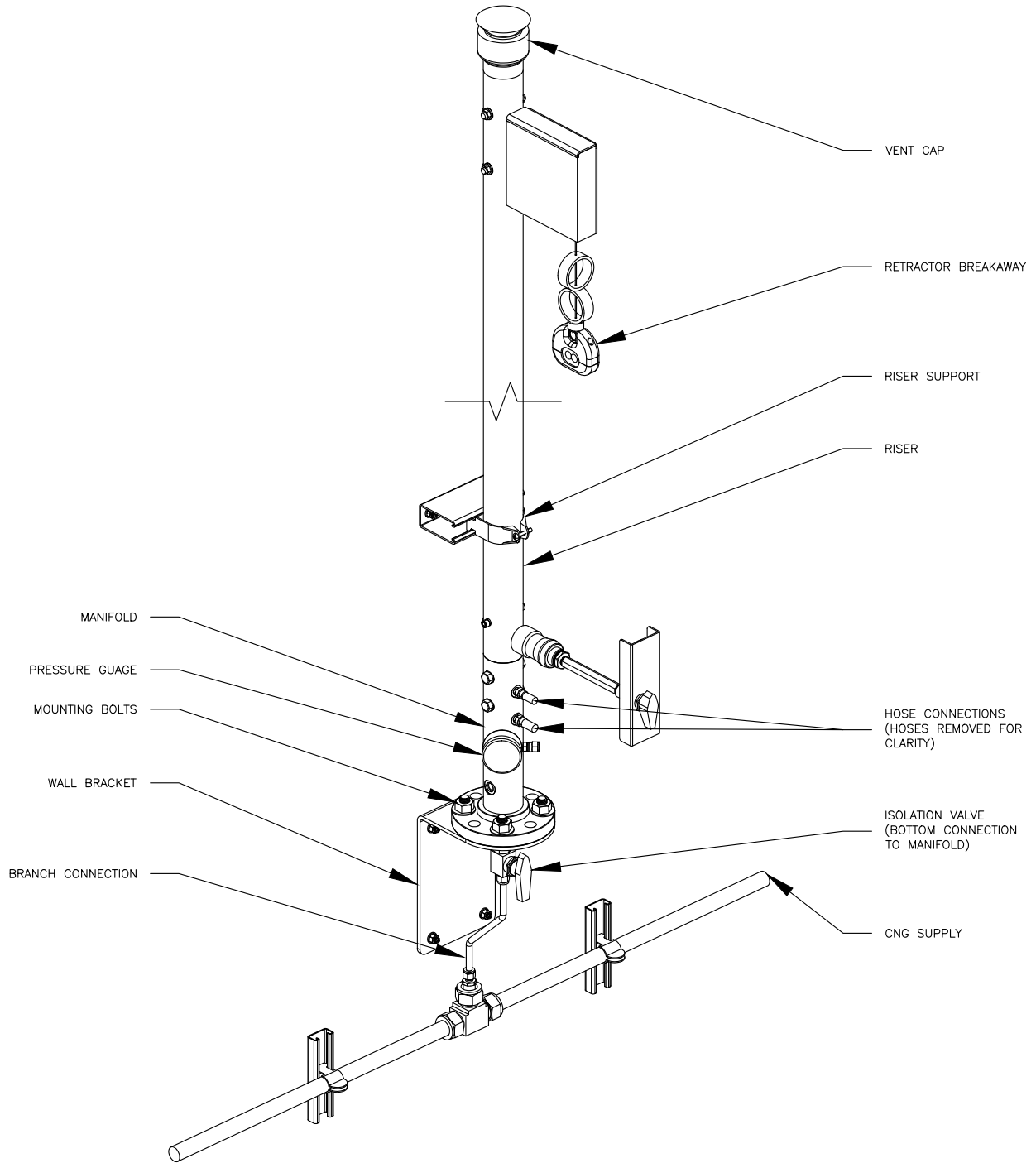
DATE:
5/25/2016

DRAWN:
RF

-

TFP-KRI001

REV	DATE	DESCRIPTION OF REVISION	BY	APP
-	-	-	-	-



PATENT PENDING

FASTECH

FUELING & SERVICE TECHNOLOGIES, INC
7050 VILLAGE DR., SUITE D, BUENA PARK, CA 90621

WALL MOUNT BRACKET DETAIL

FASTECH TIME FILL POST

DATE:
5/25/2016

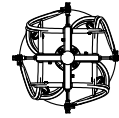
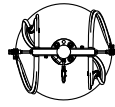
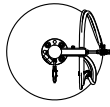
DRAWN:
RF

-

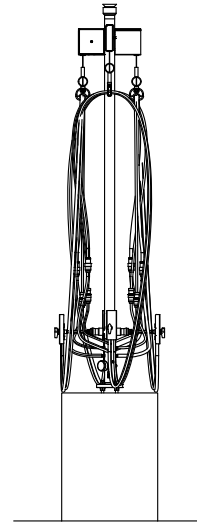
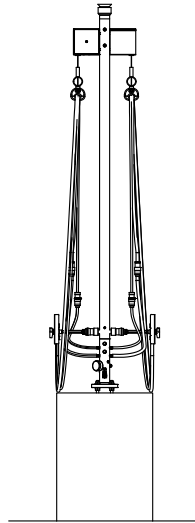
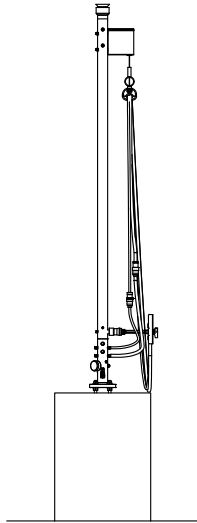
TFP-WMB001

REV	DATE	DESCRIPTION OF REVISION	BY	APP
-	-	-	-	-

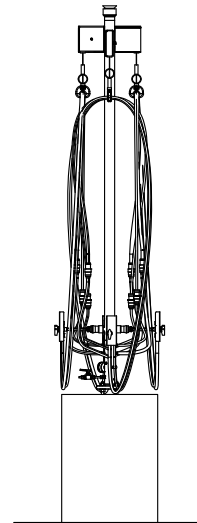
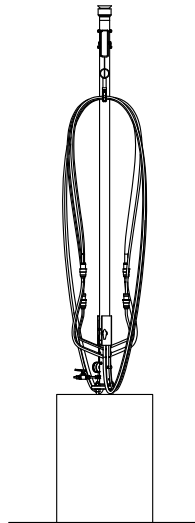
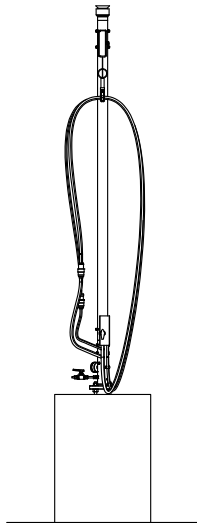
PLAN
VIEW



FRONT
VIEW



SIDE
VIEW



SINGLE
HOSE

DOUBLE
HOSE

QUAD
HOSE

24"Øx32"H CAISSON SHOWN

PATENT PENDING

FASTTECH

FUELING & SERVICE TECHNOLOGIES, INC
7050 VILLAGE DR., SUITE D, BUENA PARK, CA 90621

CAISSON OPTIONS

FASTTECH TIME FILL POST

DATE:
5/25/2016

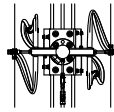
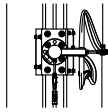
DRAWN:
RF

-

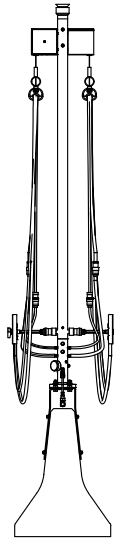
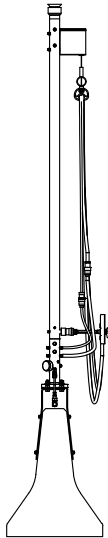
TFP-CAI001

REV	DATE	DESCRIPTION OF REVISION	BY	APP
-	-	-	-	-

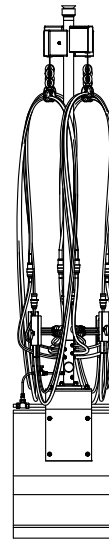
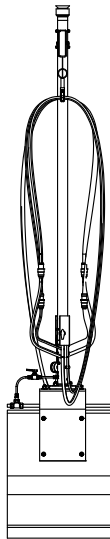
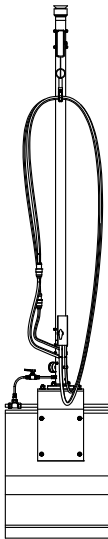
PLAN
VIEW



FRONT
VIEW



SIDE
VIEW



SINGLE
HOSE

DOUBLE
HOSE

QUAD
HOSE

STANDARD 6" CALTRANS K-RAIL SHOWN, OTHER OPTIONS AVAILABLE

PATENT PENDING

FASTTECH

FUELING & SERVICE TECHNOLOGIES, INC
7050 VILLAGE DR., SUITE D, BUENA PARK, CA 90621

K-RAIL OPTIONS

FASTTECH TIME FILL POST

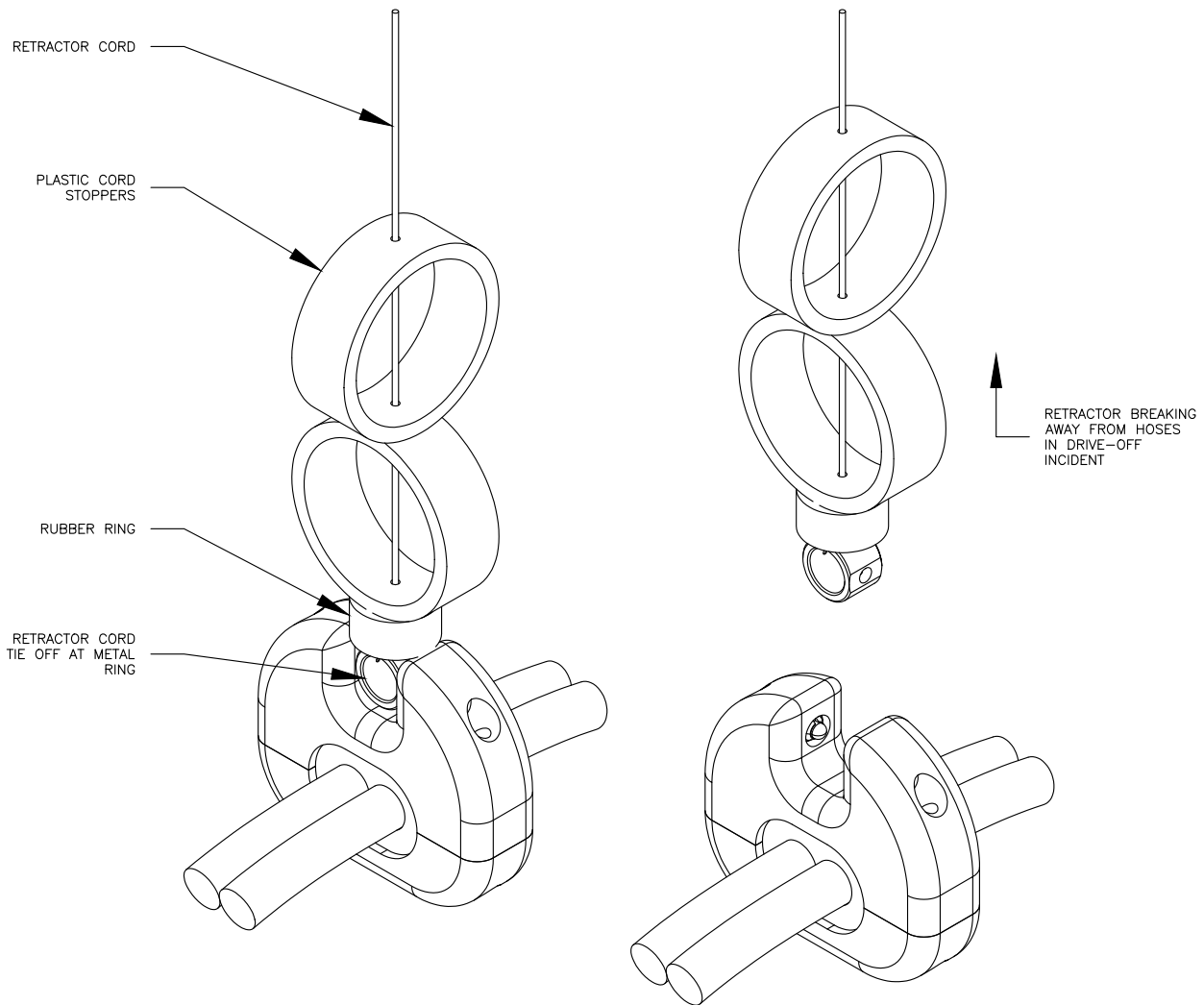
DATE:
5/25/2016

DRAWN:
RF

-

TFP-KRI002

REV	DATE	DESCRIPTION OF REVISION	BY	APP
-	-	-	-	-



PATENT PENDING



FUELING & SERVICE TECHNOLOGIES, INC
7050 VILLAGE DR., SUITE D, BUENA PARK, CA 90621

RETRACTOR CORD BREAKAWAY ASSEMBLY

FASTTECH TIME FILL POST

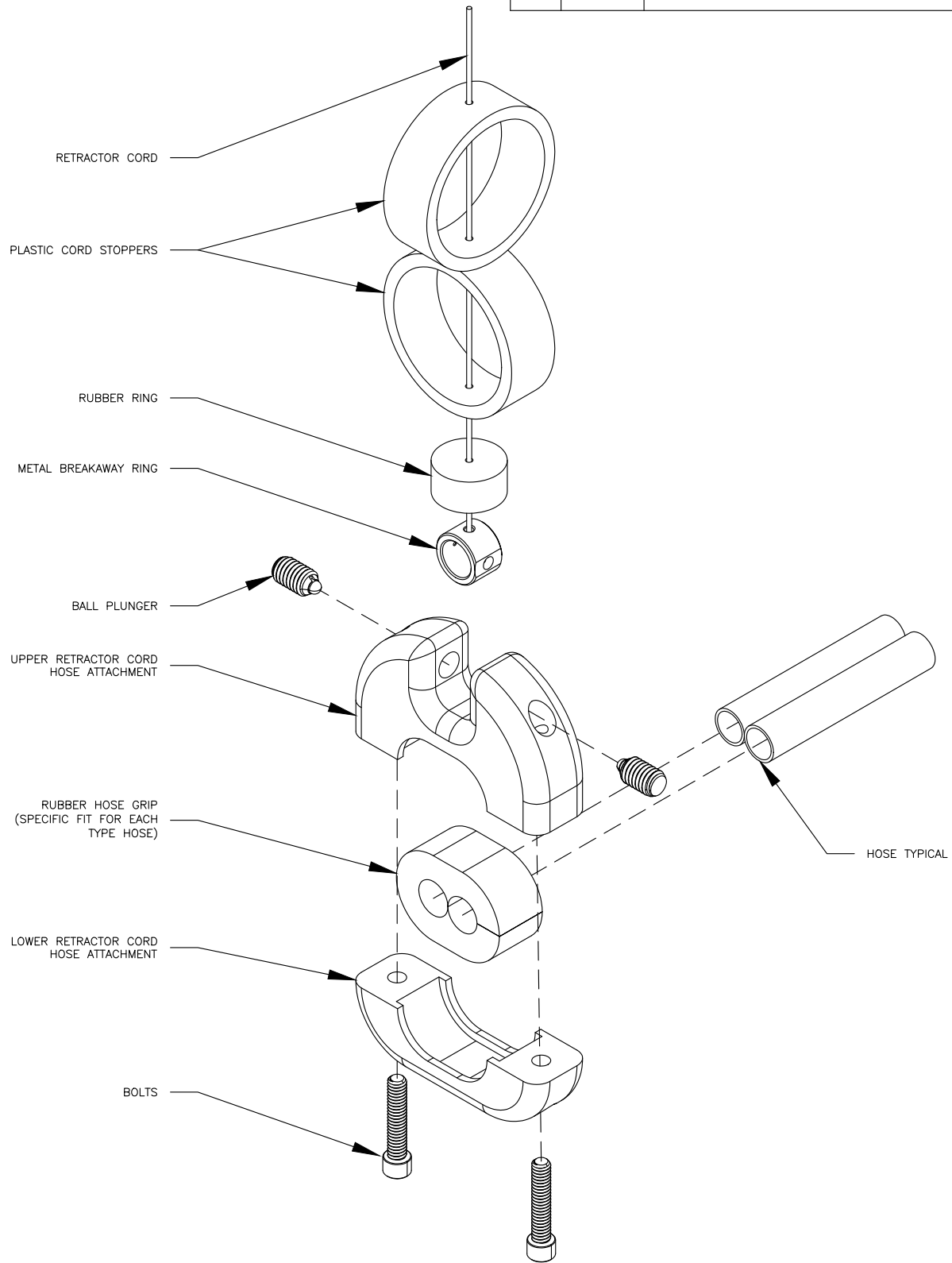
DATE:
5/25/2016

DRAWN:
RF

-

TFP-RCB-001

REV	DATE	DESCRIPTION OF REVISION	BY	APP
-	-	-	-	-



PATENT PENDING



FUELING & SERVICE TECHNOLOGIES, INC
7050 VILLAGE DR., SUITE D, BUENA PARK, CA 90621

RETRACTOR CORD BREAKAWAY ASSEMBLY EXPLODED

FASTTECH TIME FILL POST

DATE:
5/25/2016

DRAWN:
RF

-

TFP-RCB-002