

Clemas & Co Ltd

Industrial Cleaning Equipment
Sales - Hire - Service

TYPHOON PRESSURE WASHERS OPERATOR MANUAL



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Gloucestershire, GL20 8NB.

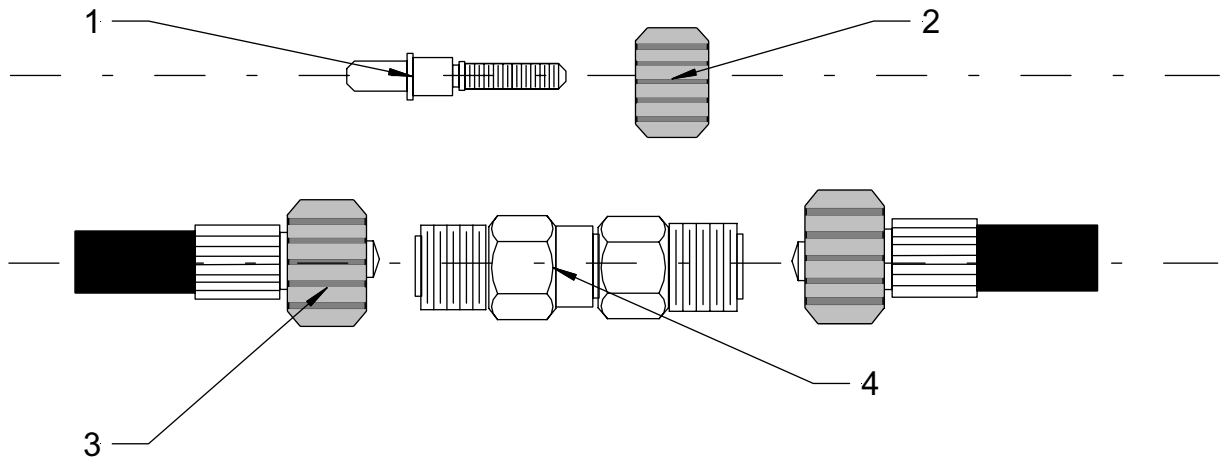
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Web: www.clemas.co.uk

High Pressure Hoses

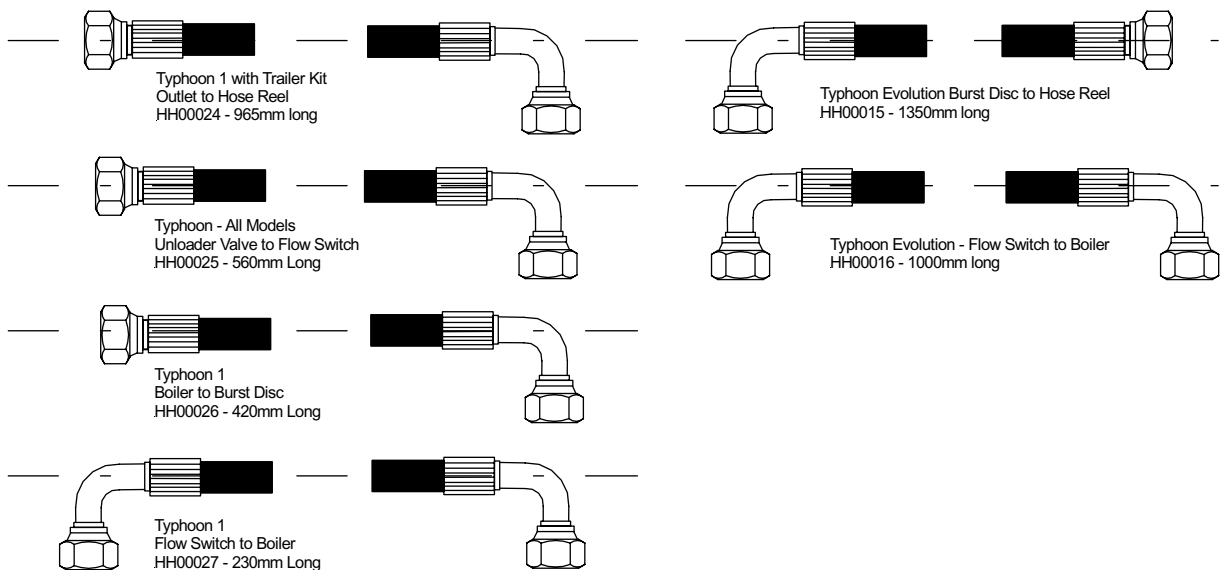


- | | |
|-----------------------|--------------------------|
| 1. Hose Insert | MV00490 (items 1 and 2) |
| 2. Nut | Not available separately |
| 3. High Pressure Hose | HH00030MVG |
| 4. Hose Joiner | MV00500 |

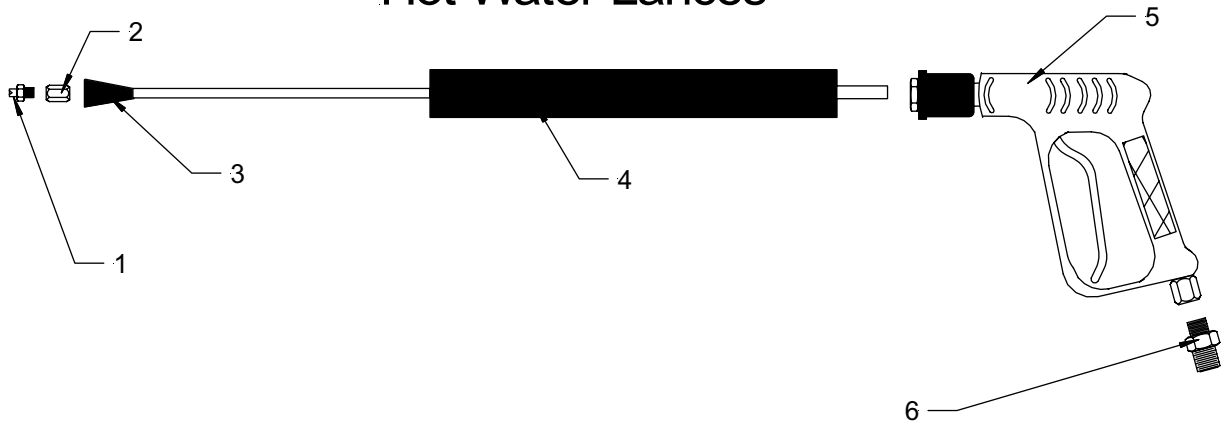
Alternative Hose Lengths

- | | | |
|-------|---|---|
| 15mtr | - | HH00050MVG - standard hose for Typhoon 1 |
| 30mtr | - | HH00100MVG - standard hose for Evolution Models |

Typhoon HP Hoses

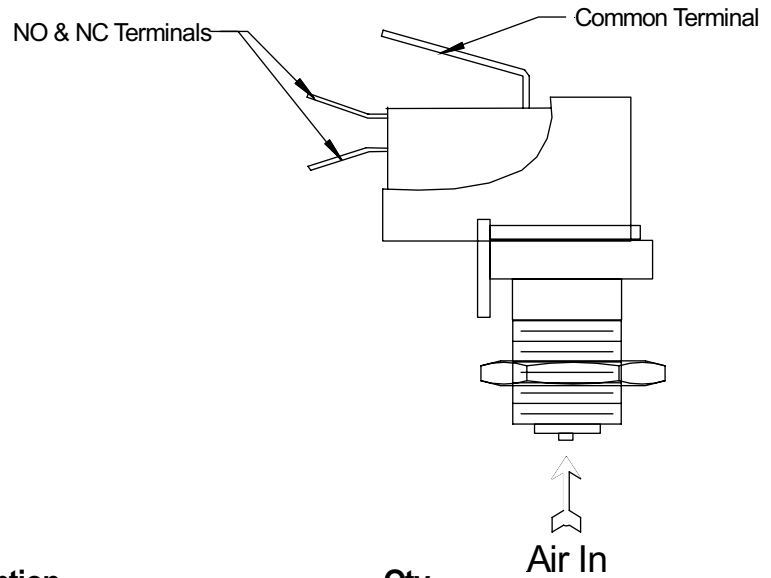
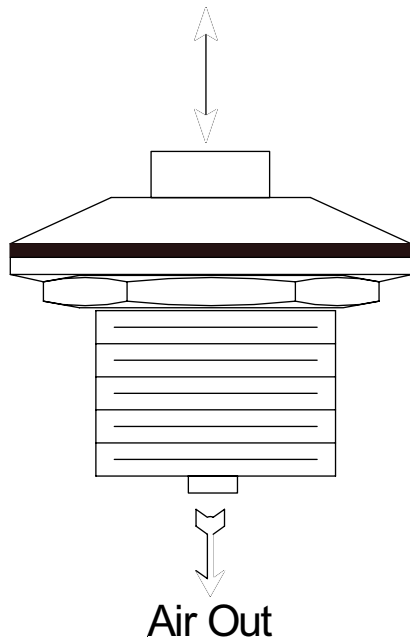


Hot Water Lances



| Position | Part Number | Description | Qty |
|----------|-------------|----------------------|-----|
| 1 | N26001/1505 | High Pressure Nozzle | 1 |
| 2 | DEM20340 | Barrel Nut 1/4" BSP | 1 |
| 3 | MTM0001000 | Rubber Cover | 1 |
| 4 | DEM10032R | QR Lance 05 | 1 |
| 5 | DEM10030 | QR Trigger | 1 |
| 6 | MTM70012 | MVG Coupling | 1 |

Air operated push button and switch



| Part No. | Description | Qty |
|----------|--------------------|-----|
| H6442B | Push Button (Blue) | 1 |
| H6442R | Push Button (Red) | 1 |
| H65000 | Air Pipe | 2 |
| H6871AC | Switch | 2 |

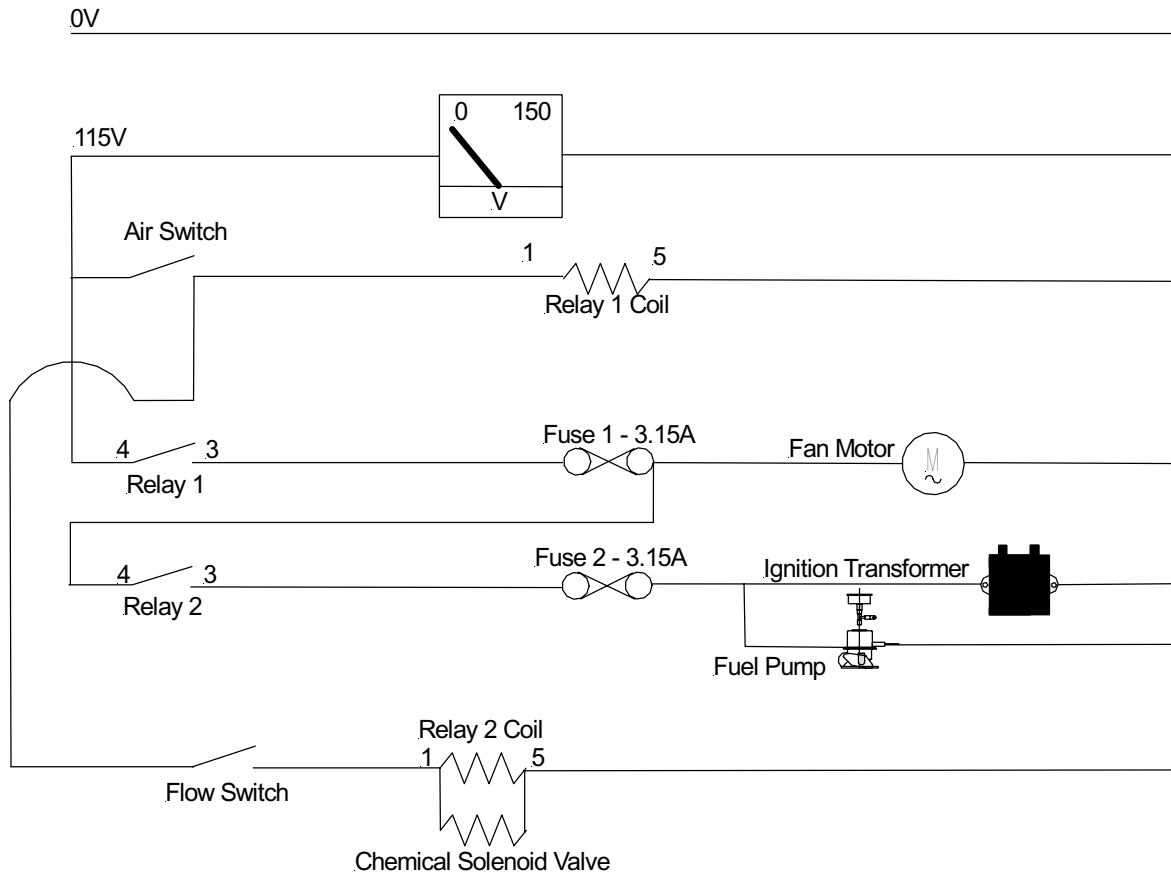
How does this work?

The air switch push button contains a membrane which, when the button is pushed increases the air pressure in the air pipe which in turn activates a mechanism inside the switch.

The top terminal on the switch is a common live feed in and the other two are N/O and N/C respectively which means it does not matter which terminal you use for the switching signal.

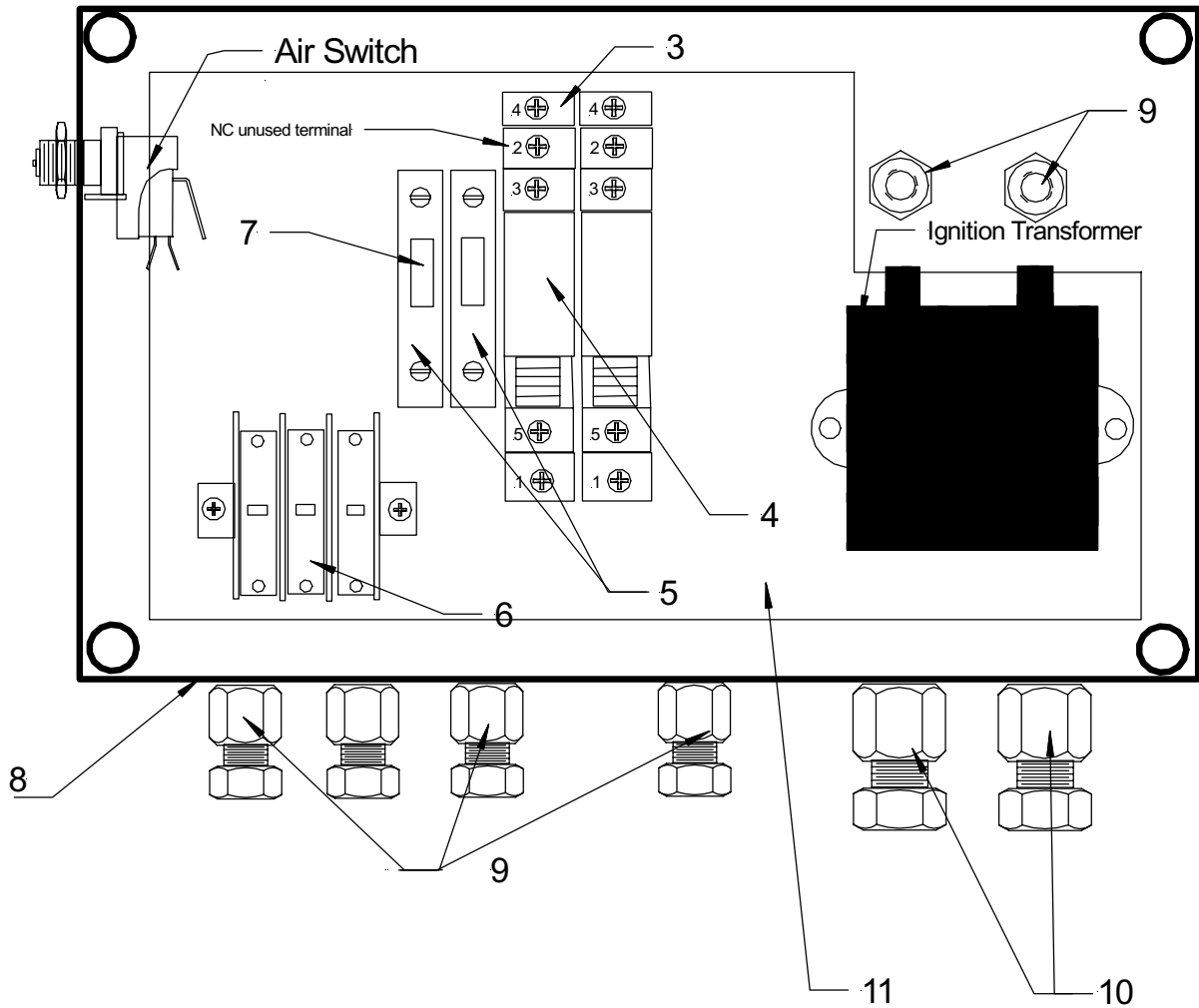
With the Typhoon 1 you are turning the fan motor on which gives a live feed to the flow switch which in turn signals the relay to give fuel and sparks at the same time.

Typhoon Wiring Diagram



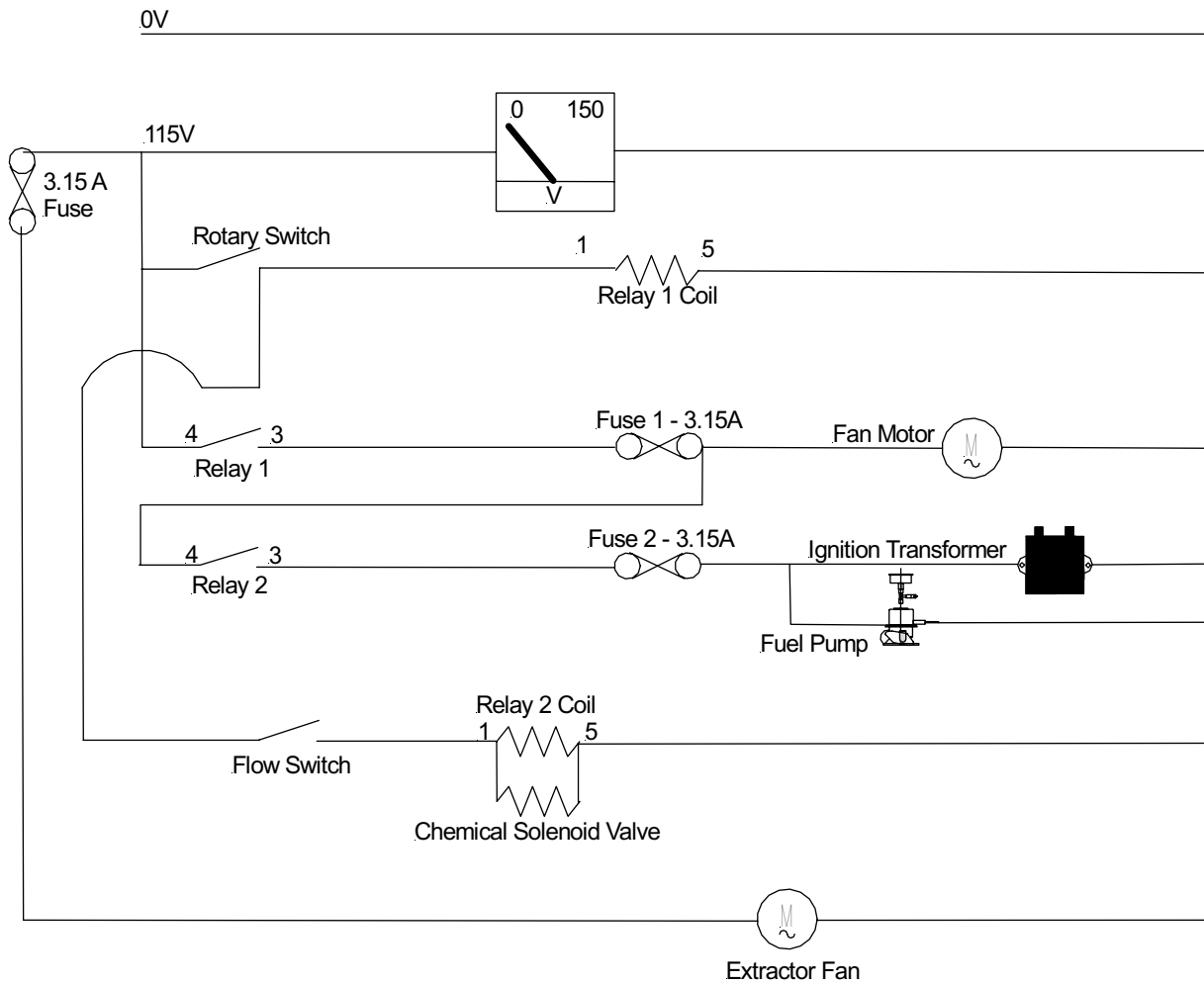
| Description | Part Number | Qty |
|-------------------------|-------------|-----|
| Airswitch | H6871AC | 1 |
| Relay | DEM100915 | 2 |
| Fuse | FUSE002 | 2 |
| Fan Motor | DB000171 | 1 |
| Ignition transformer | DB000255 | 1 |
| Fuel Pump | DB002305 | 1 |
| Flow Switch | MV00385 | 1 |
| Chemical Solenoid Valve | DEM101191 | 1 |
| Volt Meter 150V | DEM101107 | 1 |

Typhoon Electric Box



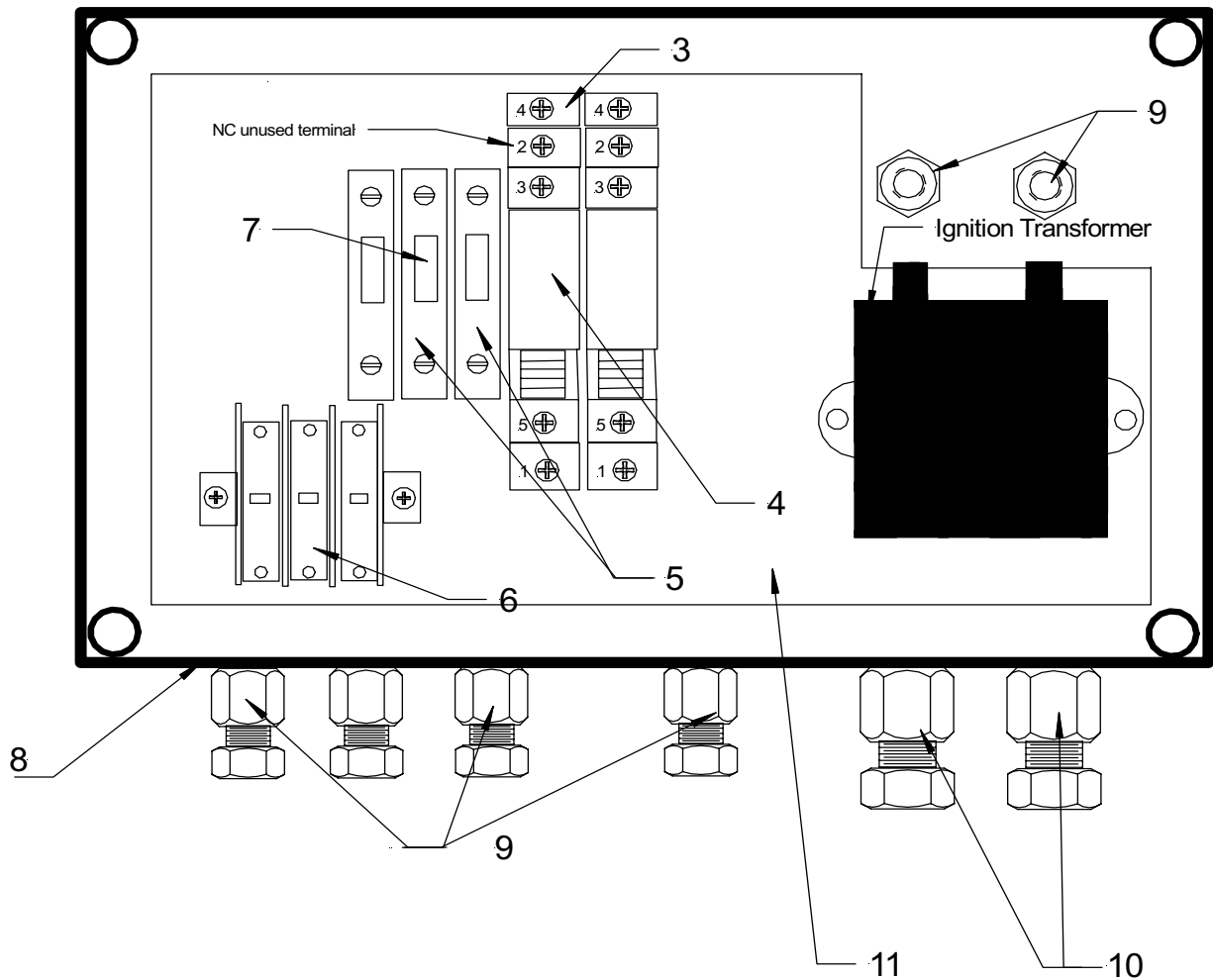
| Pos | Description | Part No | Qty |
|-----------|---|------------|-----|
| 3 | Relay Base | DEM4100750 | 2 |
| 4 | Relay | DEM100915 | 2 |
| 5 | Fuse Holder | DEM100920 | 2 |
| 6 | 3 Way Connector | DEM100948 | 1 |
| 7 | Fuse 3.15 amp | FUSE002 | 2 |
| 8 | Typhoon Electrical Box | DEM100875 | 1 |
| 9 | PG 9 Cable Gland | DEM20110 | 6 |
| 10 | PG11 Cable Gland | DEM20100 | 2 |
| 11 | Back Plate Electrical Box | DEM10330 | 1 |
| Not Shown | End Stops—fitted to the rail to prevent the fuse holders and relays from detaching. | DEM100921 | 2 |

Typhoon Evolution Wiring Diagram



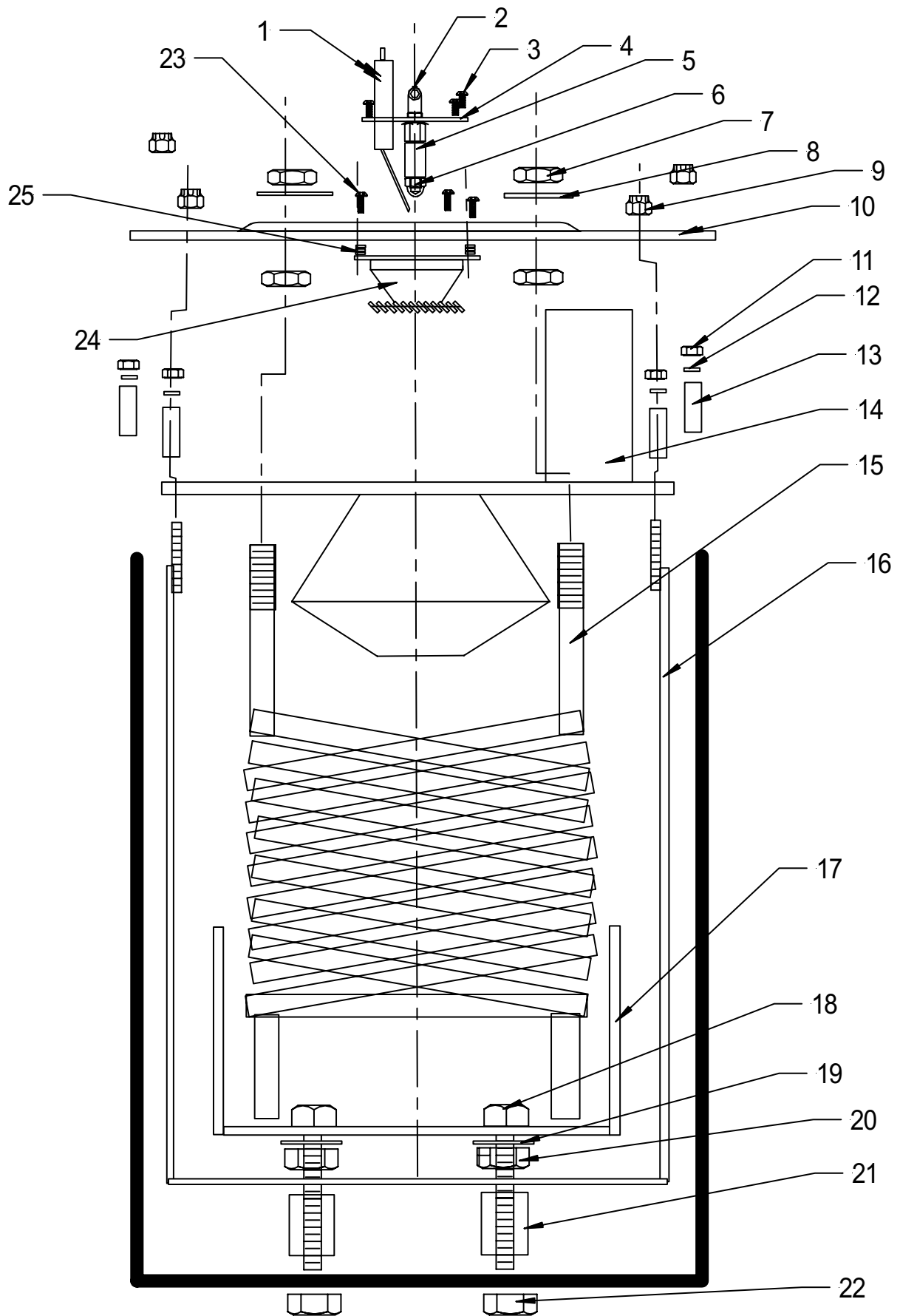
| | |
|-------------------------|-----------|
| Fuse 3.15amp | FUSE002 |
| Rotary Switch | DEM100755 |
| Relay | DEM100915 |
| Fan Motor | DB000171 |
| Ignition Transformer | DB000255 |
| Fuel Pump | DB002305 |
| Flow Switch | MV00385 |
| Chemical Solenoid Valve | DEM101191 |
| Extractor Fan | DEM100918 |

Typhoon Evolution Electric Box

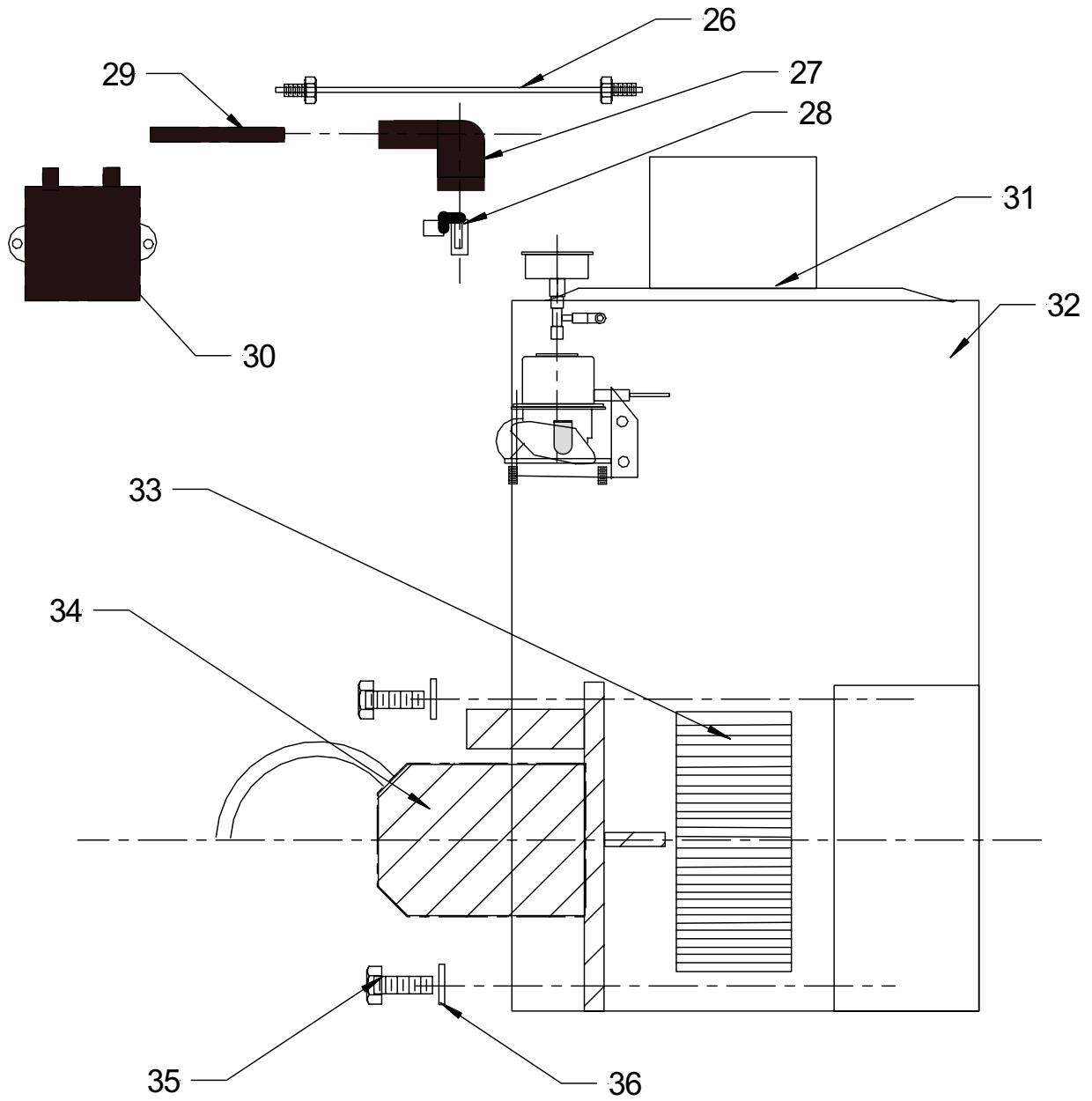


| | | |
|-----------|--|-----------|
| 3 | Relay Base | DEM100750 |
| 4 | Relay | DEM100915 |
| 5 | Fuse Holder | DEM100920 |
| 6 | 3 Way Connector Block | DEM100920 |
| 7 | Fuse 3.15amp | FUSE002 |
| 8 | Electrical Box | DEM10323 |
| 9 | PG 9 Cable Gland | DEM20110 |
| 10 | P G 11 Cable Gland | DEM20100 |
| 11 | Back Plate Electrical Box | DEM10330 |
| Not Shown | End Stops—fitted to the rail to prevent the fuse holders and relays from detaching | DEM100921 |

Inner Boiler Details



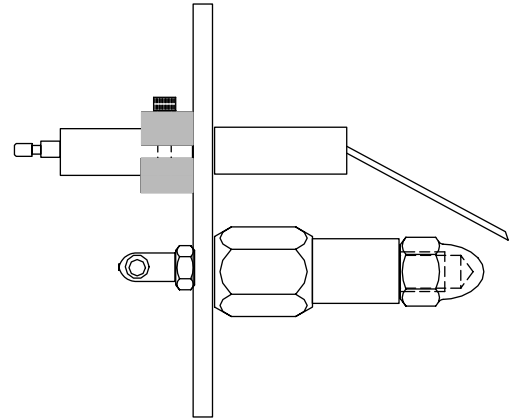
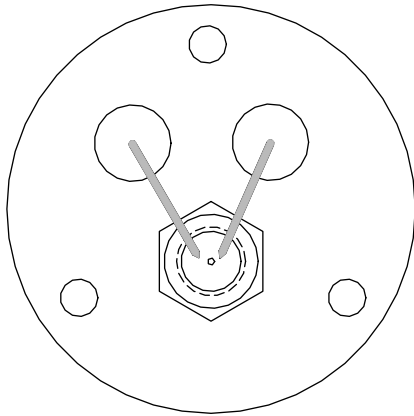
Outer Boiler Details



Boiler Parts List

| No | Description | Part Number | Qty |
|----|---------------------------|-------------|-----|
| 1 | Electrode | DB000110 | 2 |
| 2 | Adaptor | DB000130 | 1 |
| 3 | Screw | NBW00450 | 3 |
| 4 | Top Plate | DB000030 | 1 |
| 5 | Nozzle Holder | DB000020 | 1 |
| 6 | Nozzle | DB000015 | 1 |
| 7 | 3/8" BSP Nut | DB000340 | 4 |
| 8 | Washer | DB000320 | 2 |
| 9 | Nyloc Nut | NBW00160 | 4 |
| 10 | Outer Drum Lid | DB000041 | 1 |
| 11 | Plain Nut | NBW00200 | 4 |
| 12 | Washer | NBW00300 | 4 |
| 13 | Spacer | DB000280 | 4 |
| 14 | Inner Drum Lid & Cone | DB000051 | 1 |
| 15 | Heating Coil | DB000094 | 1 |
| 16 | Inner Drum | DB000070 | 1 |
| 17 | Flame Pan | DB000081 | 1 |
| 18 | Bolt | DB000065 | 3 |
| 19 | Washer | NBW00310 | 3 |
| 20 | Nut | DB000345 | 3 |
| 21 | Spacer | DB000350 | 3 |
| 22 | Nut | DB000345 | 3 |
| 23 | Screw | NBW00460 | 3 |
| 24 | Flame Swirler | DB000100 | 1 |
| 25 | Washer | NBW00300 | 9 |
| 26 | Fuel Pipe | DB002400 | 1 |
| 27 | HT Cap (Rubber) | DB000220 | 2 |
| 28 | Rajah Clip | DB000230 | 2 |
| 29 | HT Lead | DB000215 | 2 |
| 30 | Ignition Transformer 230V | DB000252 | 1 |
| | Ignition Transformer 110V | DB000255 | 1 |
| 31 | Gasket | DB000300 | 1 |
| 32 | Outer Drum + Fan Housing | DB000060 | 1 |
| 33 | Impeller | DB000180 | 1 |
| 34 | Fan Motor 230V | DB000160 | 1 |
| | Fan Motor 110V | DB000170 | 1 |
| 35 | Bolt | NBW00060 | 2 |
| 36 | Washer | NBW00280 | 2 |

Electrode Setting Details

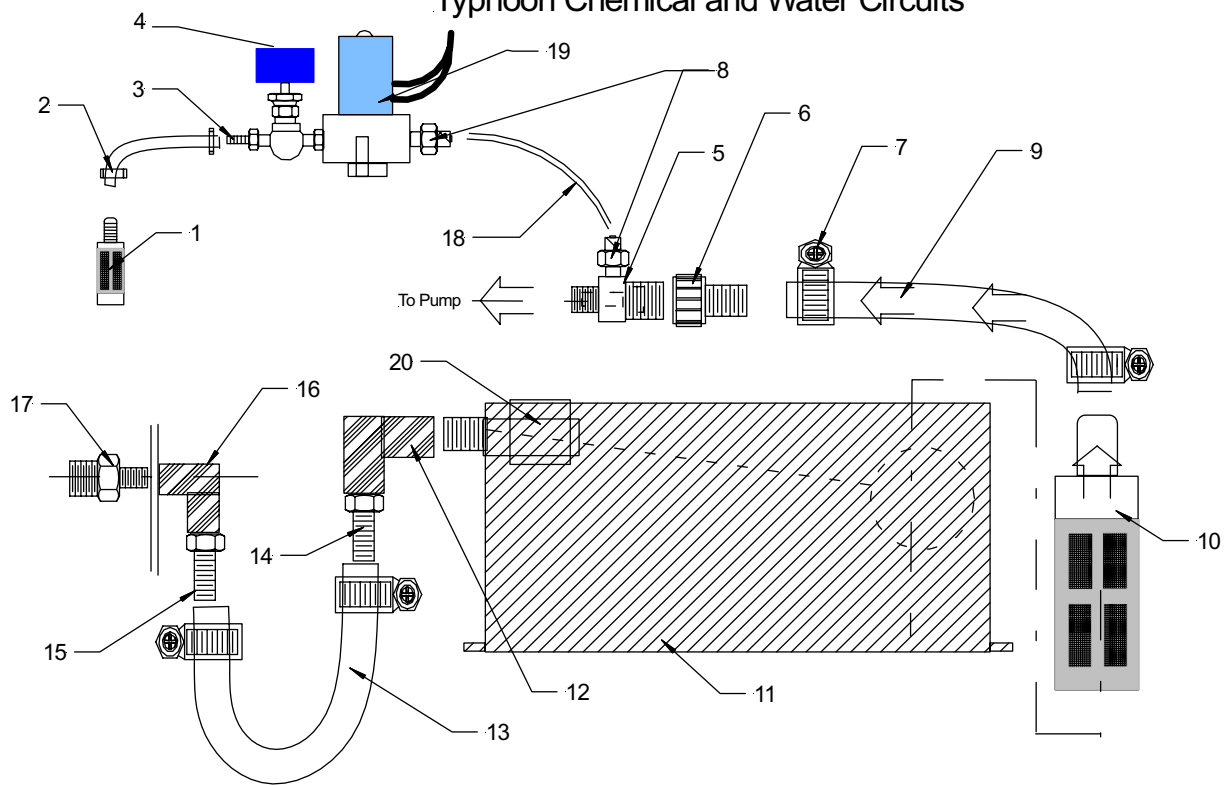


The electrodes should be set according to the picture. 50% of the ceramic insulation should be inside the boiler and 50% outside. The electrode gap should be approximately 6mm and the tips should not be in the fuel spray.

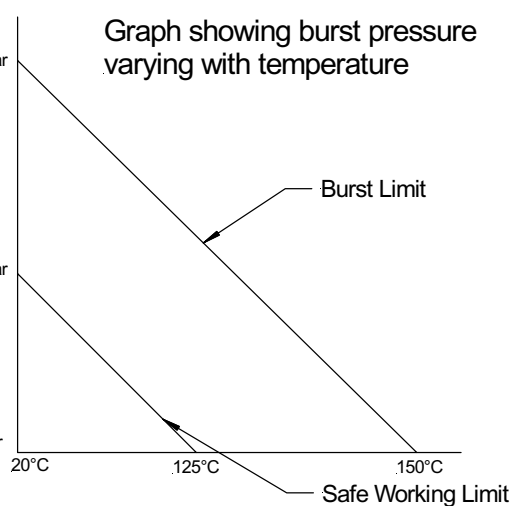
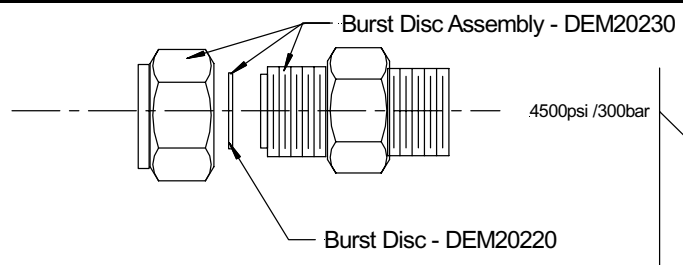
Common problems - fuel filters and nozzles are not changed regularly enough. The nozzle is a precision instrument that can be damaged by small particles of solid matter in the fuel that it is not possible to filter out. Nozzles will not atomise the fuel correctly leading to a longer flame path which you can see by flames visible near the top of the chimney. To remedy this empty the fuel tank and fill with clean fuel, change the filter and then change the fuel nozzle. Clean the electrodes and grind the tips to reveal new metal. Reset and refit and run the boiler with the gun removed for 10 minutes. This will burn off any excess fuel and clean the boiler tubes.

Service the boiler frequently for reliable running, an unserviced boiler does not heat the water correctly wasting your money!!

Typhoon Chemical and Water Circuits



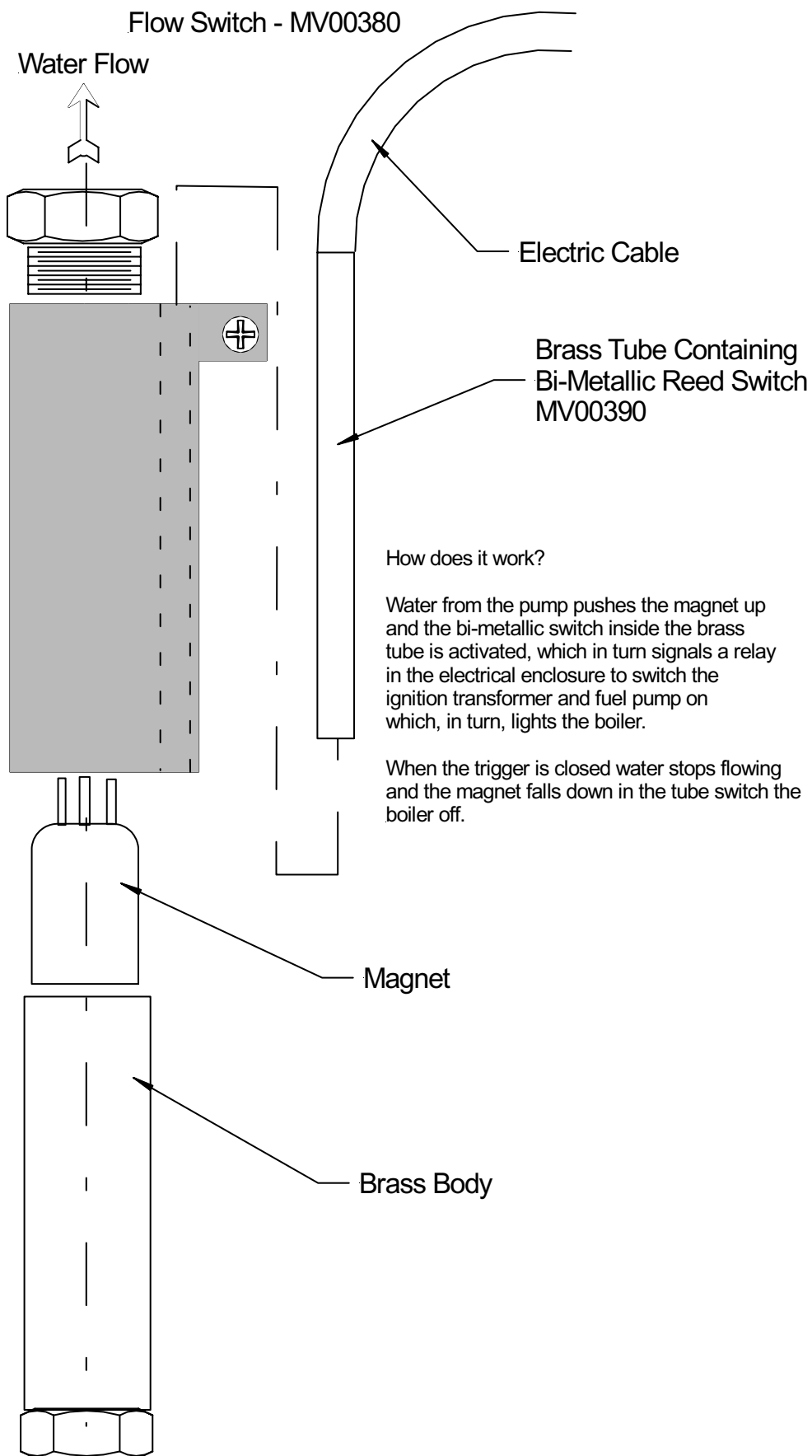
| Chemical & Water Circuits | | | | | | | |
|---------------------------|-----------|-------------------|---|----|-------------|-------------------------|---|
| 1 | MTM86010 | Chemical Filter | 1 | 12 | MTM0012FF03 | Brass Elbow | 1 |
| 2 | DEM20500 | O Clip | 4 | 13 | HH0053 | Pipe | 1 |
| 3 | DEM10115 | Chemical Pipe | 2 | 14 | DEM10310 | Hose Tail | 1 |
| 4 | DEM101191 | Chemical Solenoid | 1 | 15 | DEM10300 | Hose Tail | 1 |
| 5 | PA00100 | Chemical Intake | 1 | 16 | MTM0012FF02 | Brass Elbow | 1 |
| 6 | MTM71167 | Hose Barb Comp | 1 | 17 | DEM20255 | Adaptor | 1 |
| 7 | DEM20500 | Jubilee Clip | 4 | 18 | MTM0012FM03 | Brass Elbow | 2 |
| 8 | DEM20400 | Hose tail | 1 | 19 | DEM101191 | Chemical Solenoid Valve | 1 |
| 9 | HH0053 | Inlet Pipe | 1 | 20 | MTM89011B | Mesh Insert | 1 |
| 10 | MTM85002 | Water Filter | 1 | 21 | MTM89011 | Brass Filter | 1 |
| 11 | DEM10435 | Water Tank | 1 | | | | |



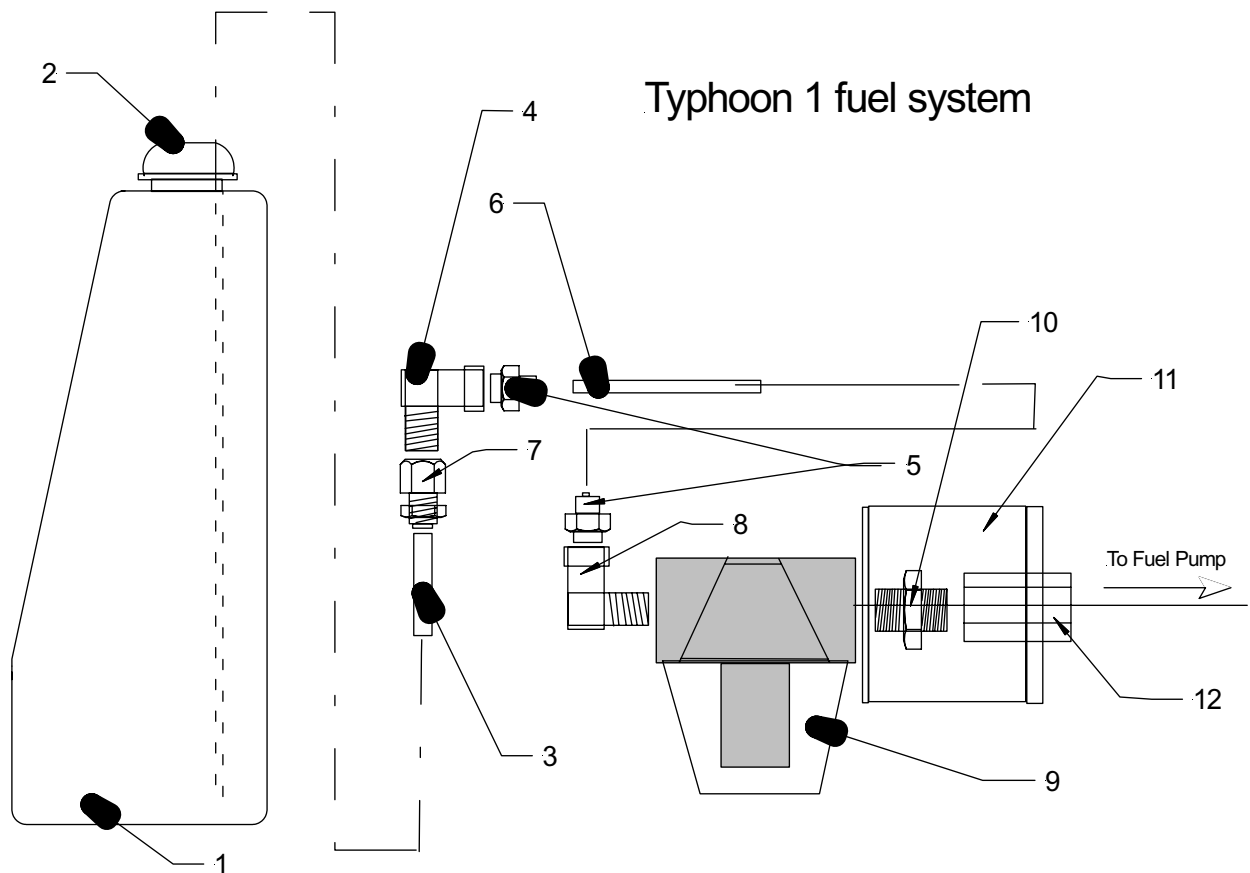
The burst disc fitted to the Demon hot water range of machines is designed to burst either with excess heat or excess pressure. The burst disc works like a fuse and will always fail safe. Rupturing of the burst disc is commonly due to one of three faults, not cooling the machine after using, a poorly maintained boiler or flow switch failure.

Running the machine for two minutes with the boiler switched off will increase the life of the boiler.

Maintaining the boiler regularly will also lead to increased efficiency and fewer breakdowns.

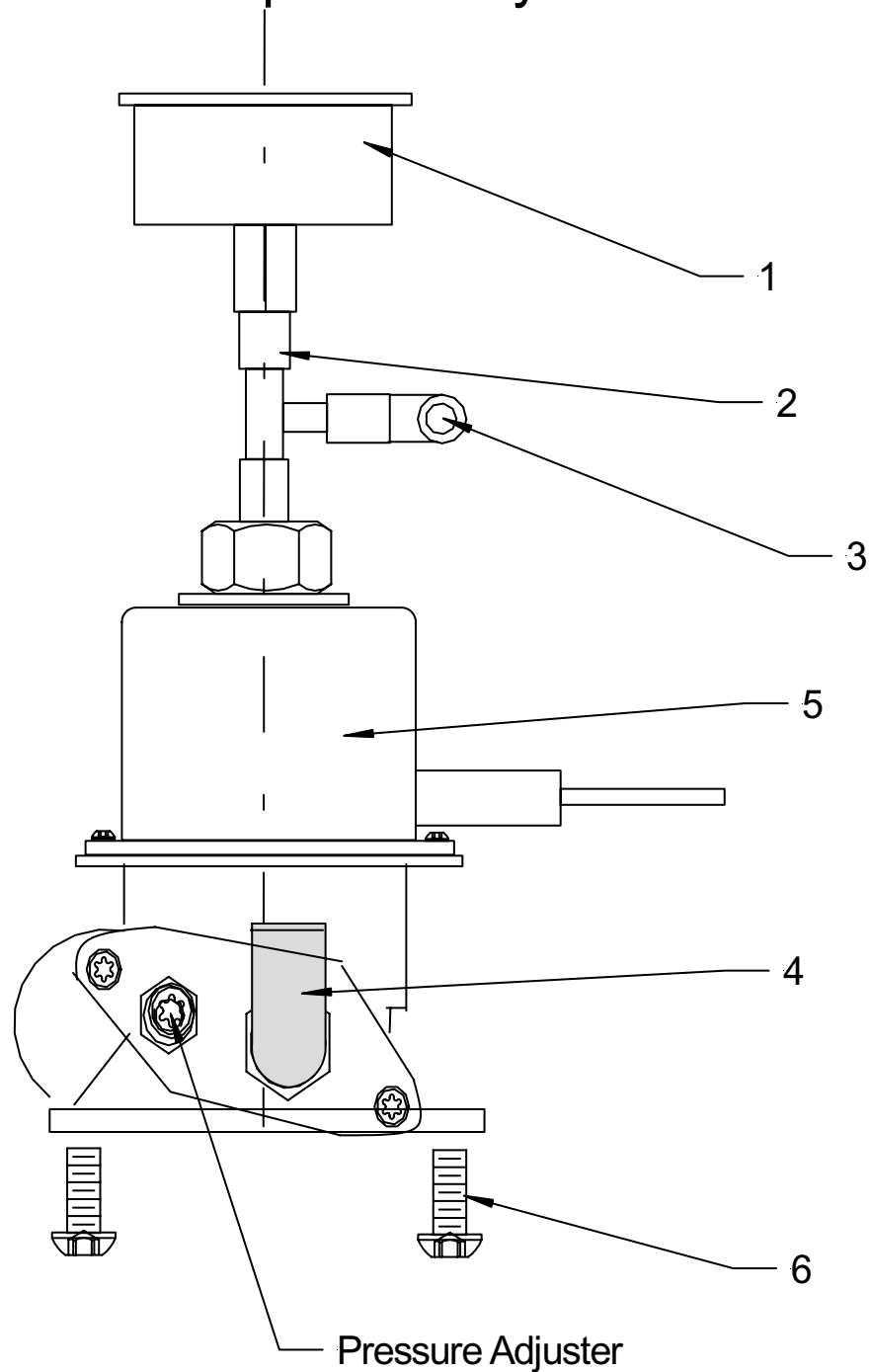


Demon Typhoon 1 Fuel Tank



| Fuel System Part List | | | |
|-----------------------|-----------|--------------------------|-----|
| No | Part No | Description | Qty |
| 1 | DEM10410 | Fuel Tank 24 Litre | 1 |
| 2 | DEM10420 | Fuel Tank Cap | 1 |
| 3 | DEM20450 | Fuel Pickup Pipe | 1 |
| 4 | DEM20440 | Elbow Adaptor | 1 |
| 5 | DEM20452 | Nylon Hose Connector | 2 |
| 6 | DEM20450 | Fuel Pickup Pipe | 1 |
| 7 | DEM20430 | Bulkhead Adaptor | 1 |
| 8 | DEM20440 | Elbow Adaptor | 1 |
| 9 | MTM87100 | Fuel Filter | 1 |
| 10 | DEM20330 | 1/4" Male x Male Adaptor | 1 |
| 11 | DB0023055 | Bracket | 1 |
| 12 | DEM20340 | 1/4" Barrel Nut | 1 |

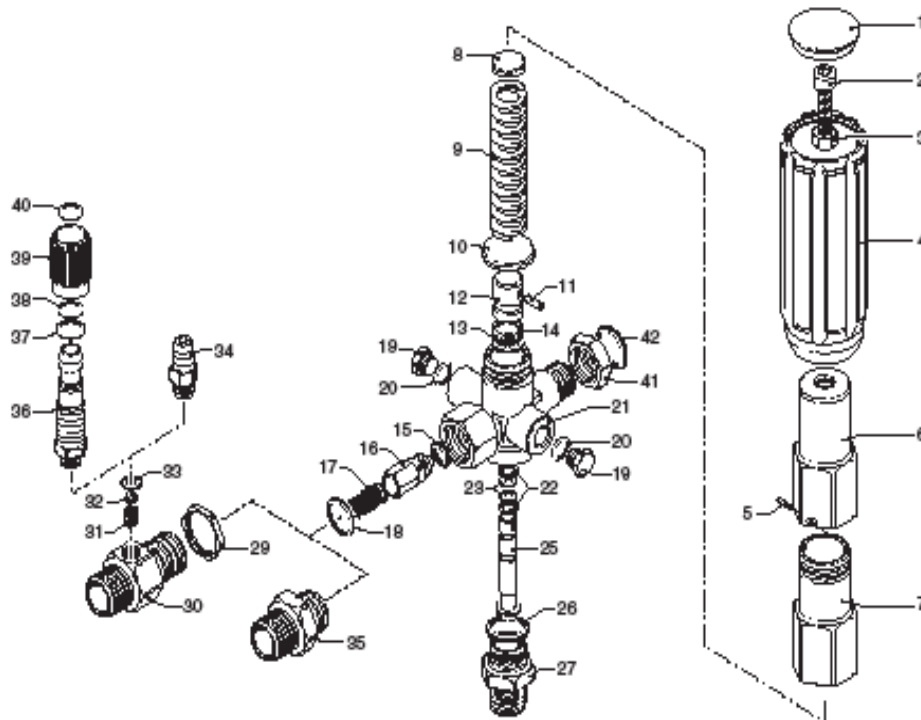
Fuel Pump Assembly



| Item | Description | Part Number | Quantity |
|------|-------------------------|-------------|----------|
| 1 | Fuel Pressure Gauge | DEM20630 | 1 |
| 2 | Tee | DB000155 | 1 |
| 3 | Adaptor | DB000135 | 1 |
| 4 | Adaptor | DB000145 | 1 |
| 5 | Fuel Pump Complete 110V | DB002305 | 1 |
| 5 | Fuel Pump Complete 230V | DB002300 | 1 |
| 6 | Screw | AR1260470 | 2 |

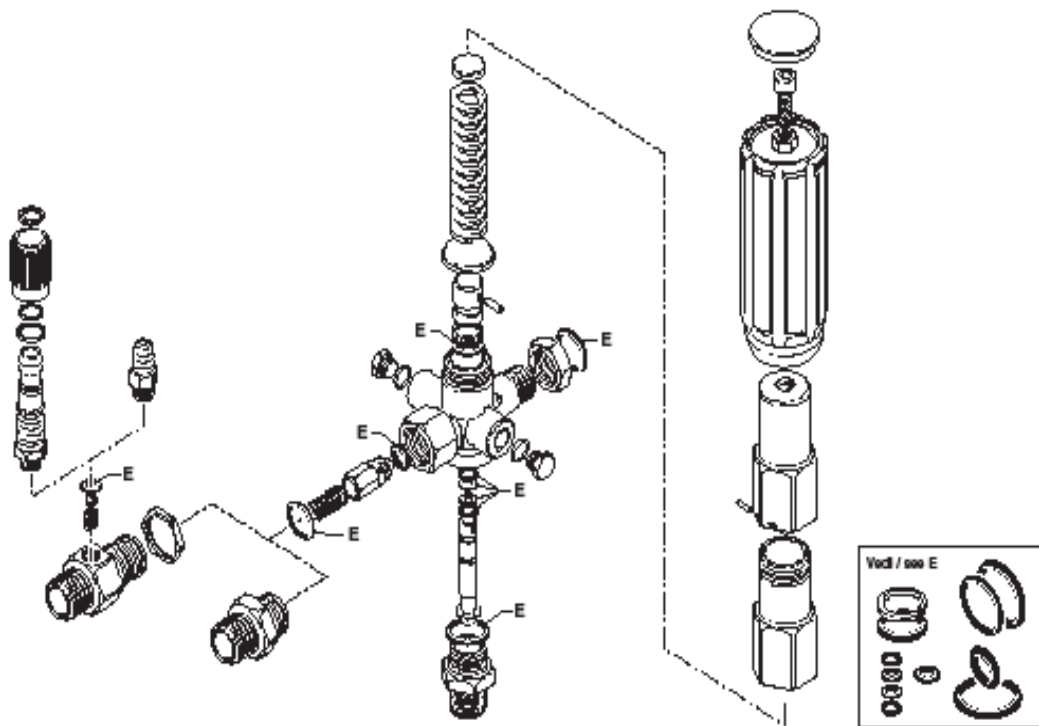
Note: Pump available in 230V or 110V only, fuel pump has no sevicable parts, when fitting new pump do not shorten leads, pressure set to 110psi (7.5 bar).

GYMATIC 3/A



UN002250-1A

KIT RICAMBI / PART KITS



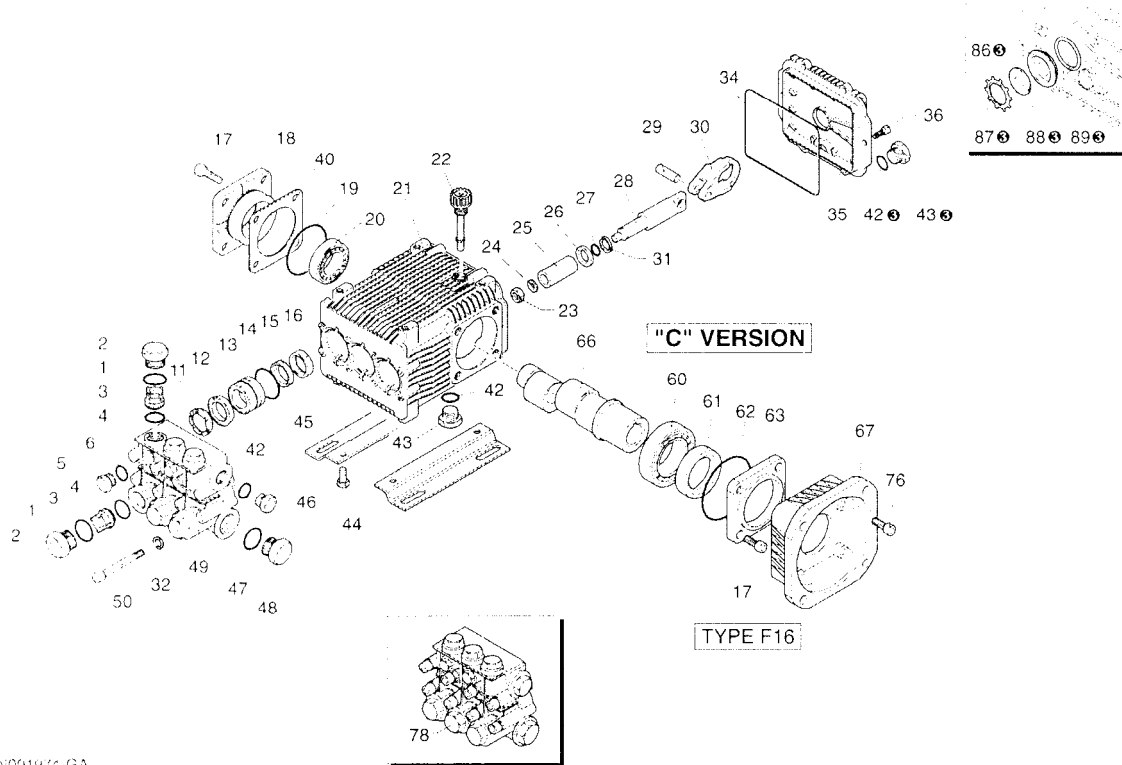
UN002260-1A

| GYMATIC 3/A | | |
|----------------------------|-------------|-------------------------------------|
| Pos | Part Number | Description |
| 1 | AR1560580 | Knob plug |
| 2 | AR180030 | Screw |
| 3 | AR1660210 | Nut |
| 4 | AR1560400 | Handle |
| 5 | AR1080070 | Pin |
| 6 | AR1560420 | Adjusting screw |
| 7 | AR1560410 | Spring guide |
| 8 | AR1560440 | Plate |
| 9 | AR1560350 | Spring |
| 10 | AR1080610 | Spring plate |
| 11 | AR1080660 | Pin |
| 12 | AR1080540 | Upper piston |
| 16 | AR1560100 | Jet |
| 17 | AR1560140 | Spring |
| 19 | AR880581 | Plug |
| 20 | AR820510 | O ring |
| 21 | AR1560020 | Valve housing |
| 25 | AR1560320 | Lower piston |
| 27 | AR1080831 | By pass adjuster |
| 29 | AR1560510 | Nut |
| 30 | AR1560500 | Fitting ³ / ₈ |
| 30 | AR1560530 | Fitting ³ / ₈ |
| 30 | AR1560540 | Fitting ³ / ₈ |
| 31 | AR1560520 | Spring |
| 32 | AR1250280 | Ball |
| 34 | AR1560490 | Hose tail |
| 35 | AR1560110 | Adaptor ³ / ₈ |
| 35 | AR1560111 | Adaptor ³ / ₈ |
| 36 | AR1560650 | Hose tail |
| 37 | AR800560 | O ring |
| 38 | AR480560 | O ring |
| 39 | AR1560670 | Detergent reg knob |
| 40 | AR1560660 | Ring |
| 41 | AR1080390 | Nut |
| 13,14,15,18,22,23,26,33,42 | ARKIT2611 | O Rings |

RK

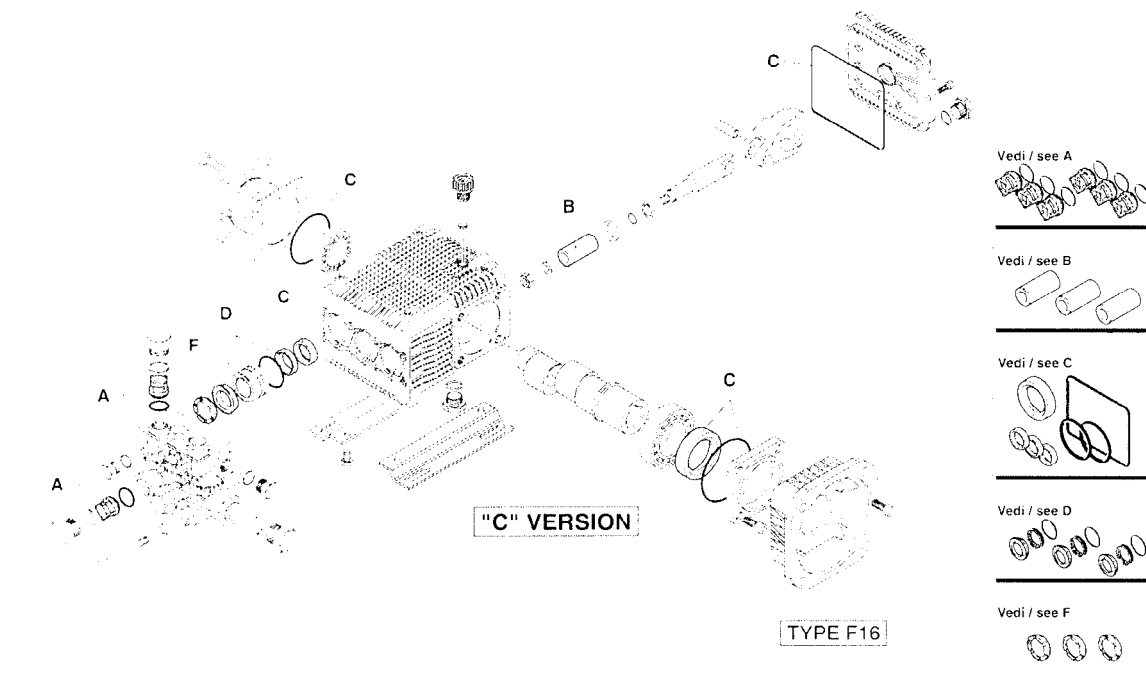
NOISE DATA
C

1450_{rpm}



UN0019/4-GA

KIT RICAMBI / PART KITS



UN0019/5-GA

128

2005 Anнови Reverberi SpA

RK MODEL: 15.20H

| Pos | Part No | Description | Qty | Pos | Part No | Description | Qty |
|-----|-----------|--------------------|-----|-----|-----------|------------------------------------|-----|
| 1 | AR960160 | O Ring | 6 | 36 | AR1343510 | Screw | 6 |
| 2 | AR960090 | Plug | 6 | 40 | AR1380120 | 0.10mm shim | 1+3 |
| 2 | AR1380740 | Plug | 6 | 40 | AR1380130 | 0.20mm shim | 1+3 |
| 3 | AR1389051 | Complete Valve | 6 | 40 | AR1380530 | 0.25mm shim | 1+3 |
| 4 | AR880830 | O Ring | 6 | 40 | AR1382810 | 0.05mm shim | 1+3 |
| 5 | AR880581 | Plug | 2 | 42 | AR740290 | O ring | 3 |
| 6 | AR820510 | O Ring | 2 | 43 | AR1980740 | ³ / ₈ G plug | 2 |
| 11 | AR960110 | Support Ring | 3 | 44 | AR1260470 | Screw | 4 |
| 12 | AR880320 | Gasket | 3 | 45 | AR1380141 | Base | 2 |
| 13 | AR1380090 | Piston Guide | 3 | 46 | AR1980740 | ³ / ₈ G Plug | 1 |
| 14 | AR961240 | O Ring | 3 | 46 | AR1981180 | ³ / ₈ G Plug | 1 |
| 15 | AR880330 | Gasket | 3 | 47 | AR180101 | O Ring | 1 |
| 16 | AR138130 | Seal | 3 | 48 | AR820361 | Plug | 1 |
| 17 | AR850370 | Screw | 8 | 48 | AR960870 | Plug | 1 |
| 18 | AR1380050 | Closed Bearing sup | 1 | 49 | AR1381071 | Pump head | 1 |
| 19 | AR640030 | O Ring | 1 | 50 | AR820150 | Screw | 8 |
| 20 | AR2280240 | Bearing | 1 | 60 | AR1380320 | Bearing | 1 |
| 21 | AR1382770 | Pump Housing | 1 | 61 | AR621170 | Seal | 1 |
| 22 | AR880130 | Oil Cap | 1 | 62 | AR1380220 | O Ring | 1 |
| 23 | AR962010 | Nut | 3 | 63 | AR1380210 | Shaft cover | 1 |
| 24 | AR962000 | Washer | 3 | 66 | AR2280180 | Hollow Shaft 28mm | 1 |
| 24 | AR1380940 | Ceramic Piston | 3 | 66 | AR2280170 | Hollow Shaft 028mm | 1 |
| 26 | AR1380950 | Spacer | 3 | 66 | AR2280160 | Hollow Shaft 028mm | 1 |
| 27 | AR600180 | O ring | 3 | 66 | AR2280150 | Hollow Shaft 028mm | 1 |
| 28 | AR1380920 | Guiding Piston | 3 | 67 | AR1380370 | El Motor flange | 1 |
| 29 | AR1380060 | Piston Pin | 3 | 76 | AR620610 | Screw | 4 |
| 30 | AR1383050 | Aluminium con-rod | 3 | 86 | AR1260250 | Oil Indicator | 1 |
| 31 | AR1080401 | Ring | 3 | 87 | AR1260430 | Snap Ring | 1 |
| 32 | AR1381850 | Washer | 8 | 88 | AR1780690 | Disc | 1 |
| 34 | AR1780510 | O Ring | 1 | 89 | AR1140450 | O Ring | 1 |
| 35 | AR1789010 | Complete cover | 1 | | | | |

| Valve Kit | | Piston Kit | | Oil Seal Kit | |
|-----------|-----|------------|-----|--------------|-----|
| ARKIT1828 | | ARKIT2757 | | ARKIT1856 | |
| Pos | Qty | Pos | Qty | Pos | Qty |
| 3 | 6 | 25 | 3 | 16 | 3 |
| 4 | 6 | | | 19 | 1 |
| | | | | 34 | 1 |
| | | | | 61 | 1 |
| | | | | 62 | 1 |

| Water Seal | | Support Ring | |
|------------|-----|--------------|-----|
| ARKIT1857 | | ARKIT1829 | |
| Pos | Qty | Pos | Qty |
| 12 | 3 | 11 | 3 |
| 14 | 3 | | |
| 15 | 3 | | |