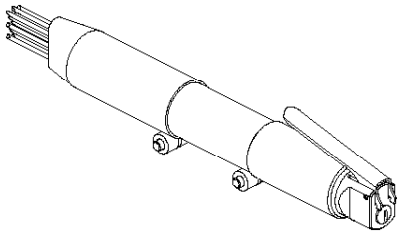
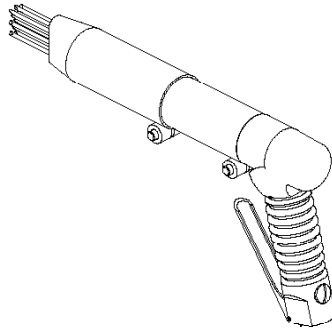


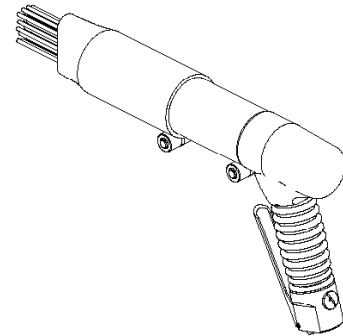
Operation and Maintenance Guide



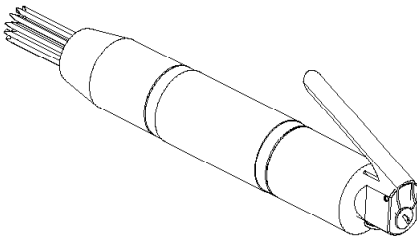
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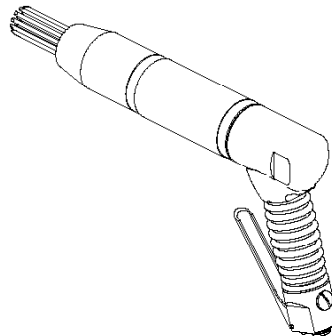
SN24PG



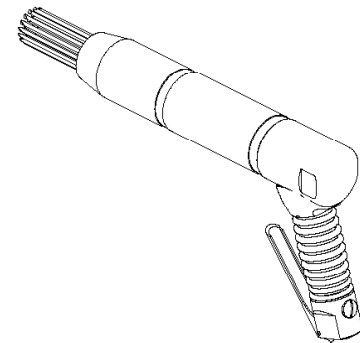
SN29PG



SN39STVL



SN39PGVL



SN45PGVL

| Models | Descriptions | IMPA Code |
|----------|--------------------------------------|-----------|
| SN24ST | In-line Pneumatic Needle Scalers | 59 04 81 |
| SN24PG | Pistol Grip Pneumatic Needle Scalers | 59 04 82 |
| SN29PG | Pistol Grip Pneumatic Needle Scalers | 59 04 83 |
| SN39STVL | In-line Pneumatic Needle Scalers | 59 05 18 |
| SN39PGVL | Pistol Grip Pneumatic Needle Scalers | 59 05 00 |
| SN45PGVL | Pistol Grip Pneumatic Needle Scalers | 59 05 10 |

Read this manual carefully before installing, operating or servicing this equipment. It's the responsibility of the employer to ensure this manual is read by the operator. Please preserve this manual.

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Introduction

Teryair needle guns are rugged tools. They are designed to be easy to use and maintain. They are ideal for removing layers of paint, corrosion and chemical coatings etc. from metal and non metal surfaces. These tools work well on irregular surfaces and in crevices and corners. The needles are heat treated and are quickly replaceable.

Technical Data

| Models | IMPA Number equivalent | Maximum operating pressure | Air Consumption (No Load) | | Blows per min (BPM) | Sound Power Level (Load) LwA b(A) | Vibration Level m/s ² | Mass (Weight) Kg | Thread Size of Air Inlet | Needles |
|----------|------------------------|------------------------------|---------------------------|---------------------|---------------------|-----------------------------------|----------------------------------|------------------|--------------------------|---------------|
| | | | CFM | m ³ /min | | | | | | |
| SN24ST | 59 04 81 | 6kg/cm ² (90 psi) | 5.5 | 0.16 | 3000 | 113.3 | 9.3 | 2.6 | 1/4" | 3mm x 19 Nos. |
| SN24PG | 59 04 82 | | 5.5 | 0.16 | 3000 | 113.3 | 12.6 | 2.6 | 1/4" | 3mm x 19 Nos. |
| SN29PG | 59 04 83 | | 8 | 0.23 | 2200 | 114.5 | 18.9 | 3.7 | 1/4" | 3mm x 28 Nos. |
| SN39STVL | 59 05 18 | | 4 | 0.11 | 2400 | 90.7 | 2.56 | 2.4 | 1/4" | 3mm x 19 Nos. |
| SN39PGVL | 59 05 00 | | 4 | 0.11 | 2400 | 90.7 | 2.75 | 2.7 | 1/4" | 3mm x 19 Nos. |
| SN45PGVL | 59 05 10 | | 5.5 | 0.16 | 3000 | 109.5 | 2.3 | 3.5 | 1/4" | 3mm x 28 nos. |

Intended Use

Needle scalers are used for surface preparation work involving the cleaning or removal of paint, rust, dirt, or weld slag from metal & non - metal surfaces. These tools also work well on irregular surfaces such as crevices & corners. The needles are heat - treated & quickly replaceable. Needle scalers are used in marine, offshore & petrochemical plants.

Safety Instructions

Following symbols are used through out this manual.

Warning

This manual must be read and the operating instructions carefully followed.

Warning

Safety and protective clothing, eyewear, head-gear, ear protection, gloves and footwear to be worn during operation of this Pneumatic Needle Scaler. Please see Table A at end of this section.

Warning

Operators under 18 not allowed to operate this Pneumatic Needle Scaler. Operators must be made familiar with the instructions in this manual before attempting to operate the Pneumatic Needle Scaler. Ensure that job site is clear of bystanders

Caution

Use only genuine Teryair or Teryair approved accessories.

Warning

This Pneumatic Needle Scaler is not designed for use in an explosive environment.

**Caution**

Completely turn off the Pneumatic Needle Scaler and disconnect air supply line before attempting any service. Read Assembly and Disassembly instructions.

**Warning**

Take care not to exceed the maximum 6 bar (90 psi) supply air pressure. Use a filter and regulator and lubricator as close to the Pneumatic Needle Scaler inlet as operation will allow ensuring a clean and regulated and lubricated air flow.

**Caution**

Do not exert excessive pressure against the work surface. Keep hoses in good condition. Check hoses for signs of wear, cracks & bulges and ensure that they are secure. Accidental disconnection while hose is pressurized makes the hose whip and can be a safety hazard.

**Caution**

- Please check the hose connection prior to starting Needle Scaler.
- Be aware that these Pneumatic Needle Scalers can create dust & flying debris.
- Keep hands & clothing away from moving parts.
- Store these Pneumatic Needle Scalers in secure & dry environment.
- Do not allow the Pneumatic Needle Scaler to run unattended.
- Do not modify this Pneumatic Needle Scaler in any way as this will invalidate the warranty and could lead to serious injury.
- Do not allow the Pneumatic Needle Scaler to run continuously whilst not in contact with the surface being prepared.
- Do not hold the exposed needles whilst the Pneumatic Needle Scaler is in use this could cause vibration damage to the hands.
- Do not drag this Pneumatic Needle Scaler by air hose.

Warning

Do not use the Pneumatic Needle Scaler in potentially explosive environments.

Operating Instructions

- Eye and face and ear protection must be worn at all times during operation of the Pneumatic Needle Scaler. There is a chance of flying debris from the jobsite and the quality of wear should be such to protect against such flying debris such as flakes of the removed layer.
- Suitable gloves must be worn at all times during operation.
- Safety Shoes with toe cap protection are a must during operation.
- Scalers are rugged dependable tools designed to give you years of satisfactory service. Follow the instructions mentioned here to enhance life and performance of your scalers.

Daily Before Operating

Disconnect and pour in 1 to 2 ounces of recommended oil into the Pneumatic Needle Scaler and reconnect hose after blowing out any accumulated dirt in the hose line before connection

Lubrication Requirements

Always install a line lubricator on the air line as close to the Pneumatic Needle Scaler as possible. A Filter Regulator Lubricator unit (FRL) is strongly recommended. Keep the lubricator bowl topped up with recommended grade of oil and check that the oil is reaching the Pneumatic Needle Scaler. Running the Pneumatic Needle Scaler without lubrication is likely to cause damage to the components causing premature replacement.

Air Supply

The Scalers work best at 6.2 bar (90 psi) air pressure. The air should be clean, dry and lubricated. Install a FRL unit as close as operation will permit.

Hoses

Daily before operation check the hoses, especially the high pressure hoses for damage or leaks
Use genuine Teryair spares and if possible mention the serial number of the Pneumatic Needle Scaler when ordering spares. Use genuine Teryair spares and if possible mention the serial number of the Pneumatic Needle Scaler when ordering spares.

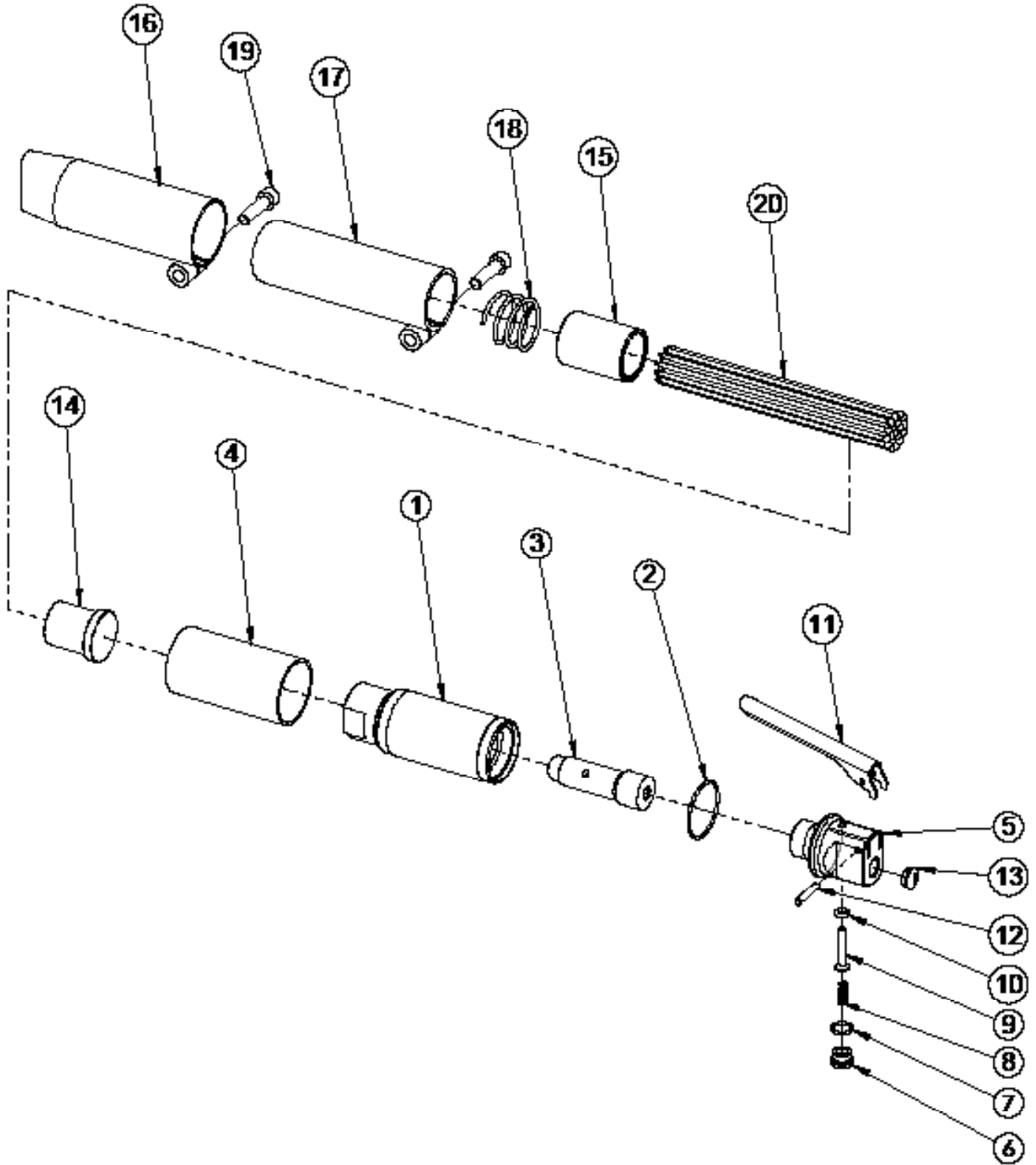
Suggested Lubricants

| Brand | Above 27oC / 80oF | 5oC to 27oC / 41oF to 80oF | Below 5oC / 80oF |
|----------------|-------------------|----------------------------|-------------------|
| Shell | Toona R 72 | Toona R 41 | Toona R 27 |
| Mobil | Almo 529 | Almo 527 | Almo 525 |
| Esso | -- | Arox EP.65 | Arox EP.45 |
| Caltex | Rando Oil 100 | Rando Oil 100 | Rando Oil 46 |
| Cp | -- | -- | Airolene Tool Oil |
| Texaco | Regal Oil F (R&O) | Regal Oil PE(P&E) | Regal Oil PE(R&O) |
| Daltron | Silkolene 881 | Silkolene 548/T | Silkolene 733 |
| Burmah Castrol | Castrol RD Oil 3 | Castrol RD Oil Light | Megna SPX |
| Duckham | Garnet 7 | Garnet 6 | Zero Fio 5 |
| Sternol | Merlin 87 | Merlin 71 | Merlin 54 |
| Petrofina | Purifoc 53 | Purifoc 46 | Purifoc 32 |
| Chevron | Vistac Oil 18X | Vistac Oil 19X | Vistac Oil 9X |
| Indoil | Servo Spyn -22 | -- | -- |

Diassembly and Re-assembly for SN24ST

- a. Shut off the air supply and allow residual Pressure to bleed off.
- b. Unscrew Allen Bolt (19) from Straight Front Tube (16). Now remove Straight Front Tube (16).
- c. Unscrew similar Allen Bolt (19) from Intermediate Tube (17). Now remove Intermediate Tube (17), Anvil (14), Needle Holder (15) with Needles (20), and Compression Spring (18) and replace it with new ones. (If found damaged/worn-out)
- d. Unscrew Valve Body (5) from Main Body (1). Now remove Piston (3), O-ring (2), and Sleeve Grip (4) from Main Body (1).
- e. Unscrew Valve Cap (6) with O-ring (7) from Valve Body (5). Now remove Valve Spring (8), Valve Stem (9), and O-ring (10) from Valve Body (5) and replace them with new ones. (If found damaged/worn-out).
- f. Remove O-ring (7) from Valve Cap (6) and replace it with the new one.
- g. Remove Roll Pin (12) from Valve Body (5). Now remove Throttle Lever (11) from Valve Body (5).
- h. Coat parts with the recommended light oil before re-assembling. Now follow the above steps in a reverse manner to reassemble the Needle Scaler.

Exploded View for SN24ST



Bill of Materials for SN24ST

| Illustration Number | Part Number | Description | SN24ST |
|---------------------|-------------|--------------------------|--------|
| 1 | 112 21 01 | MAIN BODY | 1 |
| 2 | 112 40 11 | O' RING FOR MAIN BODY | 1 |
| 3 | 112 21 02 | PISTON | 1 |
| 4 | 112 40 12 | SLEEVE GRIP | 1 |
| 5 | 112 21 07 | VALVE BODY | 1 |
| 6 | 100 21 06 | VALVE CAP | 1 |
| 7 | 100 40 15 | O' RING - VALVE CAP | 1 |
| 8 | 100 51 14 | VALVE SPRING | 1 |
| 9 | 100 25 11 | VALVE STEM | 1 |
| 10 | 124 40 01 | O' RING - VALVE SEAT | 1 |
| 11 | 100 30 12 | THROTTLE LEVER | 1 |
| 12 | 100 50 19 | ROLL PIN (Ø3.17 x 25/26) | 1 |
| 13 | 100 40 18 | PLASTIC PLUG | 1 |
| 14 | 112 21 03 | ANVIL | 1 |
| 15 | 112 21 04 | NEEDLE HOLDER (Ø3) | 1 |
| 16 | 112 32 13 | STRAIGHT FRONT TUBE | 1 |
| 17 | 112 32 14 | INTERMEDIATE TUBE | 1 |
| 18 | 112 51 15 | COMPRESSION SPRING | 1 |
| 19 | 200 90 68 | CAP HEAD SCREW (M8X30) | 2 |
| 20 | 022 90 04BL | NEEDLE (Ø3 X 180) | 19 |

Optional Accessories

| Part No | Description | Qty |
|-------------|-----------------------------|-----|
| 112 21 16 | NEEDLE HOLDER (Ø2 OPTIONAL) | 1 |
| 022 90 08BL | NEEDLE (Ø2 X 180) | 51 |

Diassembly and Re-assembly for SN24PG

- a. Shut off air supply and allow residual Pressure to bleed off.
- b. Unscrew Allen Bolt (21) from Straight Front Tube (18) & remove.
- c. Unscrew similar Allen Bolt (21) from Intermediate Tube (19) & remove Anvil (16), Needle Holder (17) with Needles (22) and Compression Spring (20) from Intermediate Tube (19) and replace it with new ones. (If found damaged/worn-out)
- d. Unscrew Cylinder (1) from Cover Assembly (6), Now remove Piston (4), O-ring (3), & O-ring (2) from Cylinder (1) and replace it with new ones (If found damaged/worn-out).
- e. Unscrew Valve Body (7) from Cover Assembly (6) & remove rubber handle grip (5).
- f. Unscrew Valve Cap (8) with O-ring (9) on Valve Body (7). Now remove Valve Spring (10) and Valve Stem (11) with O-ring (12) from Valve Body (7) and replace with new ones. (If found damaged/worn-out)
- g. Remove O-ring (9) on Valve Cap (8) and replace with new one.
- h. Remove Roll Pin (14) on valve body (7) & remove throttle Lever (13).
- i. Coat parts with the recommended light oil before re-assembling. Now follow the above steps in reverse manner to reassemble the Needle Scaler.

Bill of Materials for SN24PG

| Illustration Number | Part Number | Description | SN24PG |
|---------------------|-------------|------------------------|--------|
| 1 | 110 21 02 | CYLINDER | 1 |
| 2 | 110 40 03 | “O” RING FOR CYLINDER | 1 |
| 3 | 110 40 04 | “O” RING FOR CYLINDER | 1 |
| 4 | 112 21 02 | PISTON | 1 |
| 5 | 100 40 17 | RUBBER HANDLE GRIP | 1 |
| 6 | 110 97 06 | COVER ASSY | 1 |
| 7 | 100 21 07 | VALVE BODY | 1 |
| 8 | 100 21 06 | VALVE CAP | 1 |
| 9 | 100 40 15 | “O” RING – VALVE CAP | 1 |
| 10 | 100 51 14 | VALVE SPRING | 1 |
| 11 | 100 25 11 | VALVE STEM | 1 |
| 12 | 124 40 01 | “O” RING – VALVE SEAT | 1 |
| 13 | 100 30 12 | THROTTLE LEVER | 1 |
| 14 | 100 50 19 | ROLL PIN | 1 |
| 15 | 100 40 18 | PLASTIC PLUG | 1 |
| 16 | 112 21 03 | ANVIL | 1 |
| 17 | 112 21 04 | NEEDLE HOLDER (Ø3) | 1 |
| 18 | 112 32 13 | STRAIGHT FRONT TUBE | 1 |
| 19 | 112 32 14 | INTERMEDIATE TUBE | 1 |
| 20 | 112 51 15 | COMPRESSION SPRING | 1 |
| 21 | 200 90 68 | CAP HEAD SCREW (M8X30) | 2 |
| 22 | 022 90 04BL | NEEDLE (3 X 180MM) | 19 |

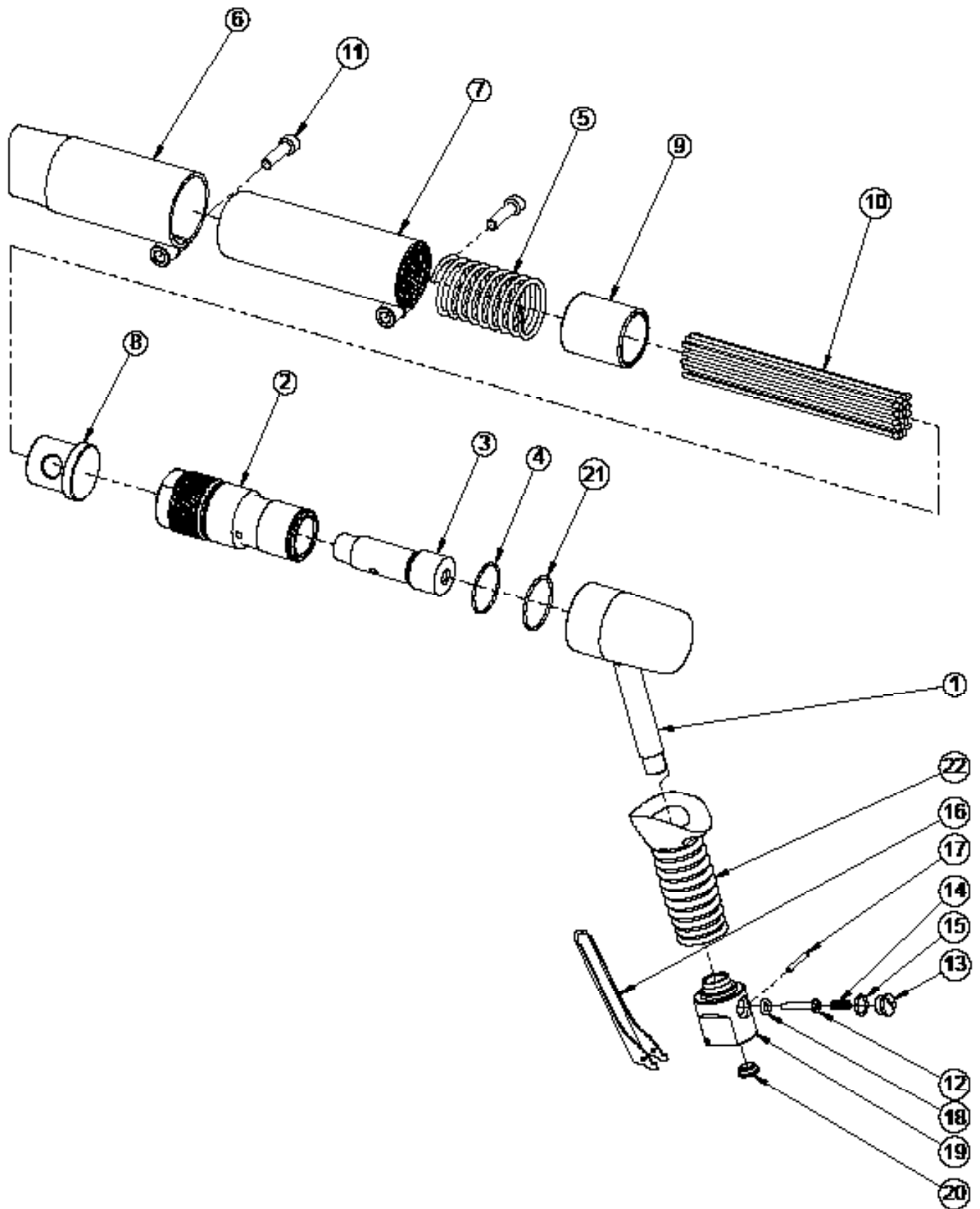
Optional Accessories

| Part No | Description | Qty |
|-----------|---------------------|-----|
| 022 90 08 | NEEDLE (2 X 180 MM) | 51 |
| 100 21 23 | NEEDLE HOLDER (Ø2) | 1 |

Diassembly and Re-assembly for SN29PG

- a. Shut off the air supply and allow residual Pressure to bleed off.
- b. Unscrew Allen Bolt (11) from Straight Front Tube (6). Now remove Straight Front Tube (6).
- c. Unscrew similar Allen Bolt (11) from Intermediate Tube (7). Now unscrew Intermediate Tube (7) from Cylinder (1).
- d. Remove Anvil (8), Needle Holder (9) with Needles (10), and Compression Spring (5) from Intermediate Tube (7) and replace it with new ones. (If found damaged/worn-out)
- e. Unscrew Cylinder (2) from Cover Assembly (1), Now remove O-ring (4), O-ring (20), and Piston (3) from Cylinder (2) and replace it with new ones.
- f. Unscrew Valve Body (19) from Cover Assembly (1).
- g. Unscrew Valve Cap (13) with O-ring (15) from Valve Body (19). Now remove Valve Spring (14) and Valve Stem (12) with O-ring (18) from Valve Body (19) and replace them with new ones. (If found damaged/worn-out)
- h. Remove O-ring (15) from Valve Cap (13) and replace it with the new one.
- i. Remove Roll Pin (17) from valve body (19). Now remove Throttle Lever (16) from valve body (19).
- j. Coat parts with the recommended light oil before re-assembling. Now follow the above steps in a reverse manner to reassemble the Needle Scaler.

Exploded View for SN29PG



Bill of Materials for SN29PG

| Illustration Number | Part Number | Description | SN29PG |
|---------------------|-------------|----------------------|--------|
| 1 | 100 97 16 | COVER ASSEMBLY | 1 |
| 2 | 100 21 02 | CYLINDER | 1 |
| 3 | 100 21 03 | PISTON | 1 |
| 4 | 100 40 12 | O'RING FOR CYLINDER | 1 |
| 5 | 100 51 08 | COMPRESSION SPRING | 1 |
| 6 | 100 24 09 | STRAIGHT FRONT TUBE | 1 |
| 7 | 100 24 10 | INTERMEDIATE TUBE | 1 |
| 8 | 100 21 04 | ANVIL | 1 |
| 9 | 100 21 05 | NEEDLE HOLDER(Ø3) | 1 |
| 10 | 022 90 04BL | NEEDLE (Ø3 X 180) | 28 |
| 11 | 200 90 68 | CAP HEAD SCREW | 2 |
| 12 | 100 25 11 | VALVE STEM | 1 |
| 13 | 100 25 06 | VALVE CAP | 1 |
| 14 | 100 51 14 | VALVE SPRING | 1 |
| 15 | 100 40 15 | O' RING - VALVE CAP | 1 |
| 16 | 100 30 12 | THROTTLE LEVER | 1 |
| 17 | 100 50 19 | ROLL PIN | 1 |
| 18 | 124 40 01 | O' RING - VALVE SEAT | 1 |
| 19 | 100 21 07 | VALVE BODY | 1 |
| 20 | 100 40 18 | PLASTIC PLUG | 1 |
| 21 | 100 40 13 | O'RING FOR CYLINDER | 1 |
| 22 | 100 40 17 | RUBBER HANDLE GRIP | 1 |

Optional Accessories

| Part No | Description | Qty |
|-----------|-------------------|-----|
| 100 21 22 | NEEDLE HOLDER(Ø2) | 1 |
| 100 21 23 | NEEDLE HOLDER(Ø4) | 1 |
| 022 90 08 | NEEDLE (Ø2 X 180) | 65 |
| 022 90 06 | NEEDLE (Ø4 X 180) | 14 |

Diassembly and Re-assembly for S39PGVL

- a. Shut off air supply and allow residual Pressure to bleed off.
- b. Unscrew Front tube (18) from Intermediate Tube (12). Now remove Insert for Front Tube (16) and Front Spring (20) from Front Tube (18).
- c. Remove O-ring (17), Needle Holder (14) with Needles (15) and Piston (10), Piston Cushion (13) from Intermediate Tube (12). Now remove Piston Ring (11) and Valve Pin (9) from Piston (10) and replace it with new ones. (If found damaged/worn-out)
- d. Unscrew Intermediate Tube (12) from Cover Assembly (1).
- e. Remove O-ring (4) from Guide Plate (2). Now remove Ball Retaining O-ring (7) and Ball (8) from Cylinder (6) and replace it with new ones. (If found damaged/worn-out)
- f. Unscrew Valve Body (21) from Cover Assembly (1).
- g. Remove Rubber Grip (19) from Cover Assembly (1) and replace with new ones. (If found damaged/worn-out)
- h. Unscrew Valve Cap (22) with O-ring (23) from Valve Body (21). Now remove Valve Spring (24), Valve Stem (25) and O-ring (26) and replace with new ones. (If found damaged/worn-out)
- i. Remove O-ring (23) from Valve Cap (22) and replace with new one.
- j. Remove Roll Pin (28) from Valve body (21) & remove Throttle Lever (27) and replace with new ones. (If found damaged/worn-out).
- k. Coat parts with the recommended light oil before re-assembling. Now follow the above steps in reverse manner to reassemble the Needle Scaler.

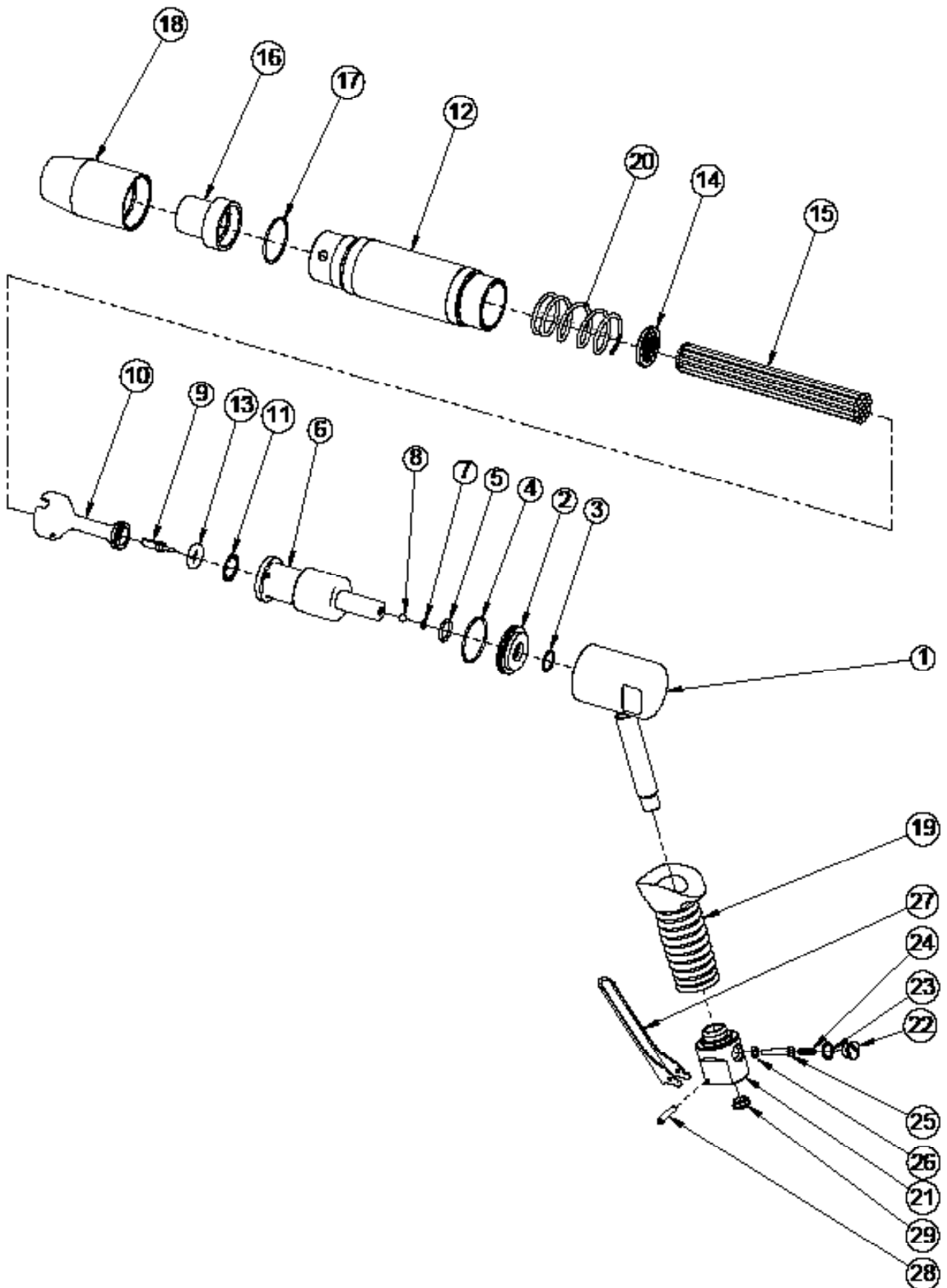
Bill of Materials for SN39PGVL

| Illustration Number | Part Number | Description | SN39PGVL |
|---------------------|---------------|--------------------------------|----------|
| 1 | 136 97 01 | COVER ASSEMBLY | 1 |
| 2 | 136 21 02 | GUIDE PLATE | 1 |
| 3 | 136 40 09 | GUIDE PLATE SEAL | 1 |
| 4 | 100 40 12 | O' RING FOR GUIDE PLATE | 1 |
| 5 | 136 40 13 | CYLINDER STEM REACTION RING | 1 |
| 6 | 136 21 03 | CYLINDER | 1 |
| 7 | 022 90 30 | BALL RETAINING 'O' RING | 1 |
| 8 | 148 09 11 | BALL | 1 |
| 9 | 148 50 21 | VALVE PIN | 1 |
| 10 | 136 21 04 | PISTON | 1 |
| 11 | 136 36 08 | PISTON RING | 1 |
| 12 | 136 24 06 | INTERMEDIATE TUBE | 1 |
| 13 | 136 40 10 | PISTON CUSHION | 1 |
| 14 | 136 21 05 | NEEDLE HOLDER (3MM) | 1 |
| 15 | 022 90 04HTBL | NEEDLE (Ø3 X 180) | 19 |
| 16 | 136 40 12 | INSERT FOR FRONT TUBE | 1 |
| 17 | 100 40 13 | O' RING FOR FRONT TUBE LOCKING | 1 |
| 18 | 136 24 07 | FRONT TUBE | 1 |
| 19 | 100 40 17 | RUBBER HANDLE GRIP | 1 |
| 20 | 136 51 14 | FRONT SPRING | 1 |
| 21 | 100 21 07 | VALVE BODY | 1 |
| 22 | 100 21 06 | VALVE CAP | 1 |
| 23 | 100 40 15 | VALVE CAP 'O' RING | 1 |
| 24 | 100 51 14 | VALVE SPRING | 1 |
| 25 | 100 25 11 | VALVE STEM | 1 |
| 26 | 100 40 16 | VALVE SEAT 'O' RING | 1 |
| 27 | 100 30 12 | THROTTLE LEVER | 1 |
| 28 | 100 50 19 | ROLL PIN | 1 |
| 29 | 100 40 18 | PLASTIC PLUG | 1 |

Optional Accessories

| Part No | Description | Qty |
|-----------|---------------------|-----|
| 136 21 15 | NEEDLE HOLDER (2MM) | 1 |
| 022 90 08 | NEEDLE (Ø2 X 180) | 48 |

Exploded View for SN39PGVL



Diassembly and Re-assembly for S39STVL

- a. Shut off air supply and allow residual Pressure to bleed off.
- b. Unscrew Front tube (24) from Intermediate Tube (21) & remove Insert (23), Front Spring (22).
- c. Remove O-ring (26), Needle Holder (15) with Needles (16) and Piston (11), Piston Cushion (13) from Intermediate Tube (21). Now remove Piston Ring (12) and Valve Pin (14) from Piston (11) and replace it with new ones. (If found damaged/worn-out)
- d. Unscrew Intermediate Tube (21) from Cover Assembly (1).
- e. Remove O-ring (27) from Guide Plate (4) & remove Ball Retaining O-ring (6) and Ball (3) from Cylinder (5) Replace parts with new ones. (If found damaged/worn-out).
- f. Unscrew Valve Cap (19) with O-ring (9) from Cover Assembly (1) & remove Valve Spring (17), Valve Stem (8) and O-ring (18). Replace parts with new ones. (If found damaged/worn-out).
- g. Remove O-ring (9) from Valve Cap (19) and replace with new one.
- h. Remove Roll Pin (25) from Cover Assembly (1) & remove Throttle Lever (27) from Cover Assembly (1) and replace with new ones. (If found damaged/worn-out).
- i. Coat parts with the recommended light oil before re-assembling. Now follow the above steps in reverse manner to reassemble the Needle Scaler.

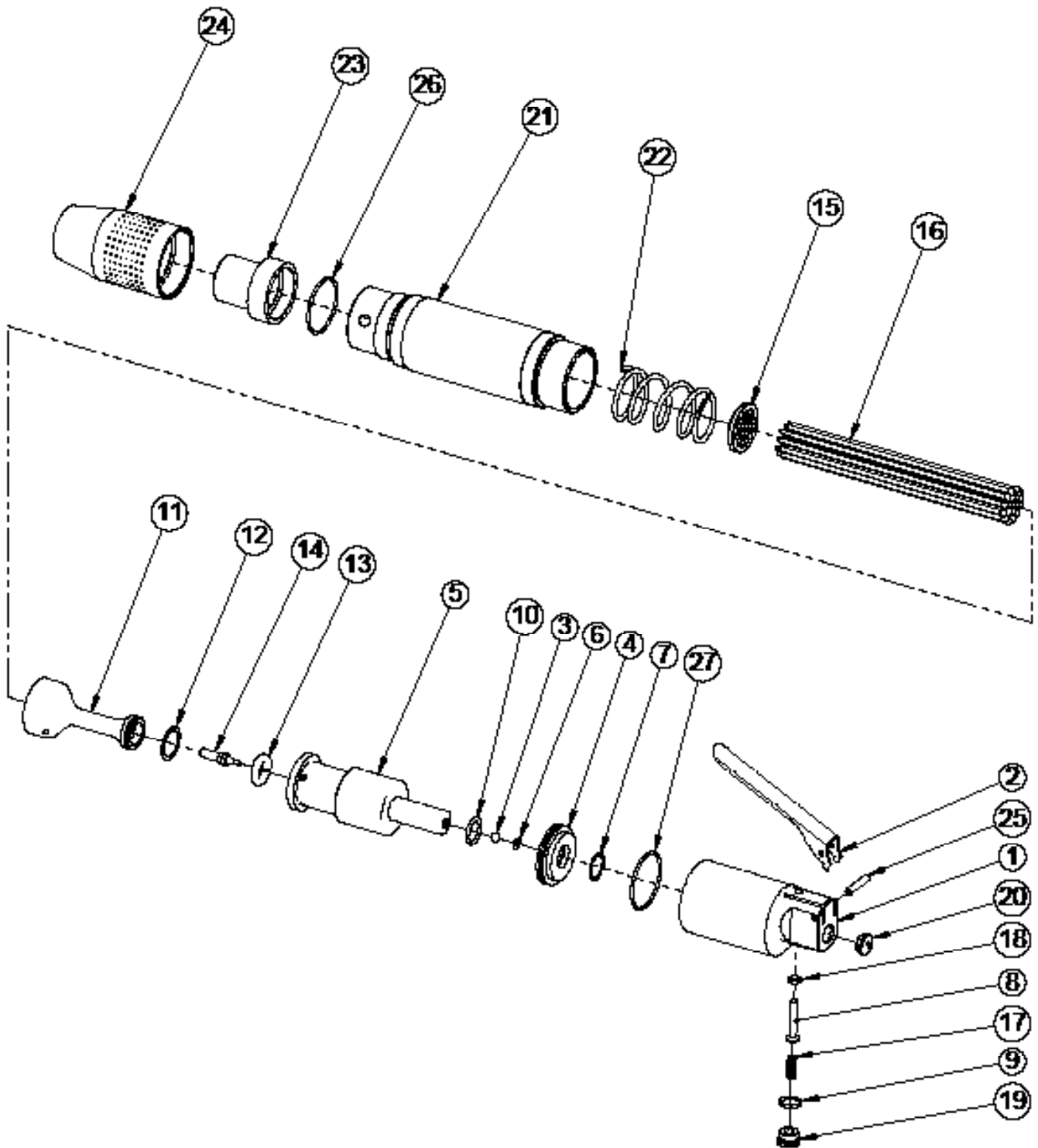
Bill of Materials for SN39STVL

| Illustration Number | Part Number | Description | SN39STVL |
|---------------------|---------------|--------------------------------|----------|
| 1 | 144 21 01 | COVER ASSEMBLY (IN LINE) | 1 |
| 2 | 100 30 12 | THROTTLE LEVER | 1 |
| 3 | 148 09 11 | BALL | 1 |
| 4 | 136 21 02 | GUIDE PLATE | 1 |
| 5 | 136 21 03 | CYLINDER | 1 |
| 6 | 148 40 12 | BALL RETAINING 'O' RING | 1 |
| 7 | 136 40 09 | GUIDE PLATE SEAL | 1 |
| 8 | 100 25 11 | VALVE STEM | 1 |
| 9 | 100 40 15 | O' RING - VALVE CAP | 1 |
| 10 | 136 40 13 | CYLINDER STEM REACTION RING | 1 |
| 11 | 136 21 04 | PISTON | 1 |
| 12 | 136 36 08 | PISTON RING | 1 |
| 13 | 136 40 10 | PISTON CUSHION | 1 |
| 14 | 148 50 21 | VALVE PIN | 1 |
| 15 | 136 21 05 | NEEDLE HOLDER (3MM) | 1 |
| 16 | 022 90 04HTBL | NEEDLE (Ø3 X 180) | 19 |
| 17 | 100 51 14 | VALVE SPRING | 1 |
| 18 | 124 40 01 | O' RING - VALVE SEAT | 1 |
| 19 | 100 21 06 | VALVE CAP | 1 |
| 20 | 100 40 18 | PLASTIC PLUG | 1 |
| 21 | 136 21 06 | INTERMEDIATE TUBE | 1 |
| 22 | 136 51 14 | FRONT SPRING | 1 |
| 23 | 136 40 12 | INSERT FOR FRONT TUBE | 1 |
| 24 | 136 24 07 | FRONT TUBE | 1 |
| 25 | 100 50 19 | ROLL PIN | 1 |
| 26 | 100 40 13 | O' RING FOR FRONT TUBE LOCKING | 1 |
| 27 | 100 40 12 | O' RING FOR GUIDE PLATE | 1 |

Optional Accessories

| Part No | Description | Qty |
|-----------|----------------------|-----|
| 136 21 15 | NEEDLE HOLDER (2MM) | 1 |
| 022 90 08 | NEEDLE (Ø2 X 180) | 48 |

Exploded View for SN39STVL



Diassembly and Re-assembly for SN45PGVL

- a. Shut off air supply and allow residual Pressure to bleed off.
- b. Unscrew Front tube (17) from Intermediate Tube (8) & remove Insert (16) and Front Spring (15).
- c. Remove O-ring (10), Needle Holder (13) with Needles (14) and Piston (11), Piston Cushion (7) from Intermediate Tube (8). Now remove Piston Ring (12) and Valve Pin (19) from Piston (11) and replace it with new ones. (If found damaged/worn-out)
- d. Unscrew Intermediate Tube (8) from Cover Assembly (20).
- e. Remove O-ring (10) from Guide Plate (4) & remove Ball Retaining O-ring (3) and Ball (2) from Cylinder (6) to replace it with new ones. (If found damaged/worn-out)
- f. Unscrew Valve Body (21) from Cover Assembly (20).
- g. Remove Rubber Grip (1) from Cover Assembly (20) and replace with new ones. (If found damaged/worn-out)
- h. Unscrew Valve Cap (22) with O-ring (23) from Valve Body (21) & remove Valve Spring (24), Valve Stem (25) and O-ring (26) to replace with new ones. (If found damaged/worn-out)
- i. Remove O-ring (23) from Valve Cap (22) and replace with new one.
- j. Remove Roll Pin (28) from Valve body (21) & remove Throttle Lever (27) to replace with new ones. (If found damaged/worn-out).
- k. Coat parts with the recommended light oil before re-assembling. Now follow the above steps in reverse manner to reassemble the Needle Scaler.

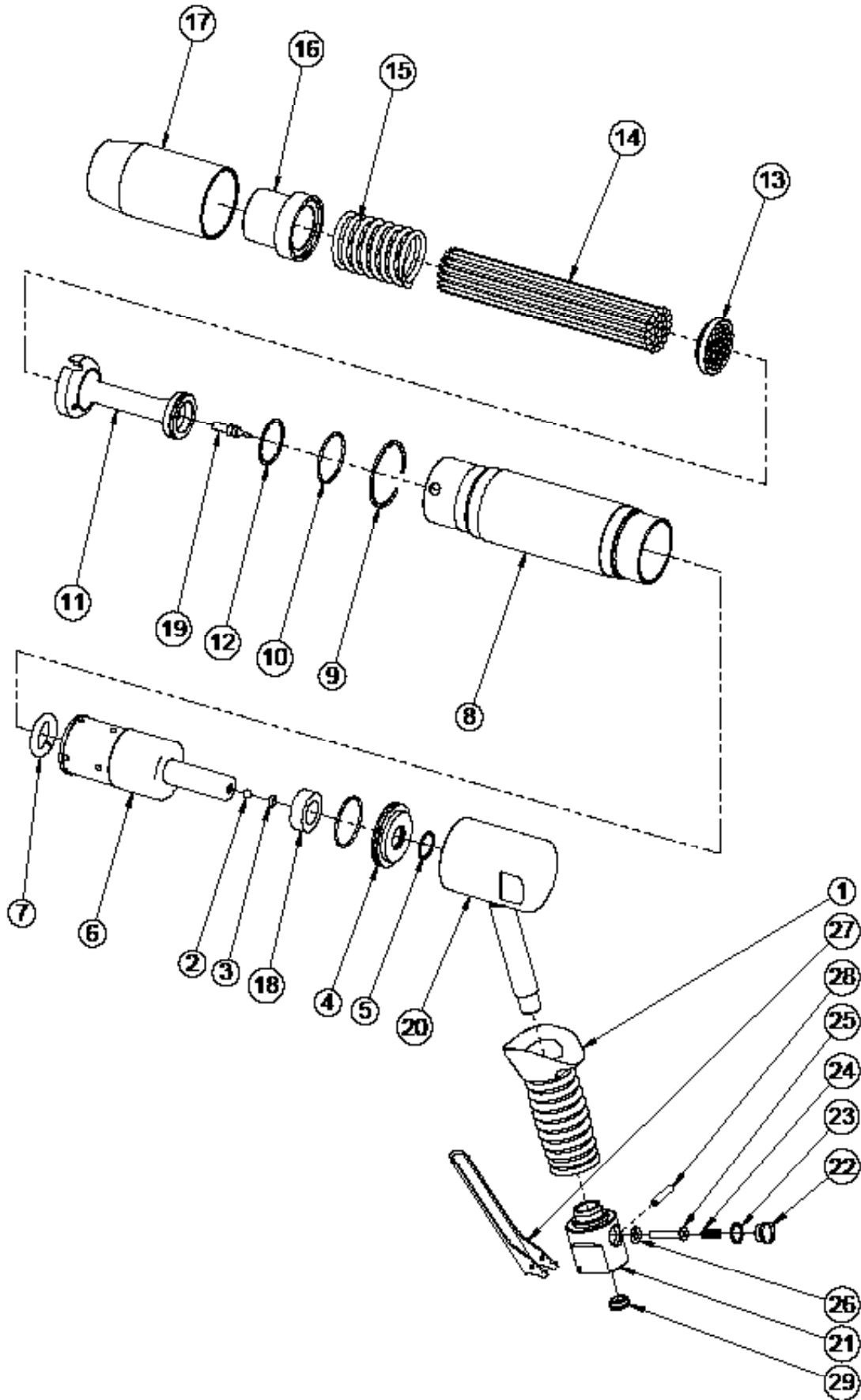
Bill of Materials for SN45PGVL

| Illustration Number | Part Number | Description | SN45PGVL |
|---------------------|---------------|-------------------------------------|----------|
| 1 | 100 40 17 | RUBBER HANDLE GRIP | 1 |
| 2 | 148 36 11 | BALL | 1 |
| 3 | 022 90 30 | O' RING FOR TROTTLE VALVE | 1 |
| 4 | 148 21 02 | GUIDE PLATE | 1 |
| 5 | 148 40 13 | GUIDE PLATE SEAL | 1 |
| 6 | 148 21 03 | CYLINDER | 1 |
| 7 | 148 40 15 | PISTON CUSHION | 1 |
| 8 | 148 24 08 | INTERMEDIATE TUBE | 1 |
| 9 | 148 51 23 | CIRCLIP | 1 |
| 10 | 100 40 13 | O'RING | 2 |
| 11 | 148 21 04 | PISTON | 1 |
| 12 | 148 36 18 | PISTON RING | 1 |
| 13 | 148 21 05 | NEEDLE HOLDER (3mm) | 1 |
| 14 | 022 90 04HTBL | NEEDLE (Ø3 X 180) FOR NEEDLE SCALER | 28 |
| 15 | 148 51 22 | FRONT SPRING | 1 |
| 16 | 148 5119 | INSERT | 1 |
| 17 | 148 24 09 | FRONT TUBE | 1 |
| 18 | 148 40 20 | CYLINDER STEM REACTION RING | 1 |
| 19 | 148 50 21 | VALVE PIN | 1 |
| 20 | 148 97 07 | COVER ASSEMBLY. | 1 |
| 21 | 100 21 07 | VALVE BODY | 1 |
| 22 | 100 21 06 | VALVE CAP | 1 |
| 23 | 100 40 15 | O' RING - VALVE CAP | 1 |
| 24 | 100 51 14 | VALVE SPRING | 1 |
| 25 | 100 25 11 | VALVE STEM | 1 |
| 26 | 124 40 01 | O' RING - VALVE SEAT | 1 |
| 27 | 100 30 12 | THROTTLE LEVER | 1 |
| 28 | 100 50 19 | ROLL PIN | 1 |
| 29 | 100 40 18 | PLASTIC PLUG | 1 |

Optional Accessories

| Part No | Description | Qty |
|-----------|-------------------------------------|-----|
| 148 21 24 | NEEDLE HOLDER (2mm) | 1 |
| 148 2125 | NEEDLE HOLDER (4mm) | 1 |
| 022 90 08 | NEEDLE (Ø2 X 180) FOR NEEDLE SCALER | 65 |
| 022 90 06 | NEEDLE (Ø4 X 180) FOR NEEDLE SCALER | 19 |

Exploded View for SN45PGVL



EU DECLARATION OF CONFORMITY

We hereby certify that the Listed Product stipulated below comply with all relevant provisions of the machinery directive (2006/42/EC) and the national laws and regulations adopting this directive.

Description : **Pneumatic Steel Needle Scaler**

Model Number : **SN Series**

Is in conformity with the provisions of the following European Directives: (2006/42/EC) Machinery Safety and Harmonized standards

ISO 12100-1: 2010: Safety of Machinery –general Principles for Design –Risk Assessment and Risk Reduction.

Registered Office : TERYAIR EQUIPMENT PVT. LTD.
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Vasai(E), Palghar – 401 208. Maharashtra, India

Web site : www.teryair.com

Works : A-1, Tirupati Udyog Nagar, Sativali Road, Vasai East,
Palghar – 401208, Maharashtra, India.

CE certification registration no – C E 16831

Issued by – BMQR Certifications Pvt Ltd.
www.cemarking-india.com

Valid Till – 03/11/2025

Signed for and on behalf of



TERYAIR EQUIPMENT PVT. LTD.

Place of Issue : Vasai



Warranty Certificate

Every product manufactured by Teryair
is built to meet the highest standards of quality.

Teryair warrants that the Products, accessories and parts manufactured or supplied by the company be free from defects in material and workmanship for a period of six months from date of Teryair authorized dealer invoice to customer, or one year from date of Teryair invoice to dealer, whichever is earlier. Failure due to normal wear, misapplication, or abuse is, of course, excluded from this warranty.

Since the use of Teryair products and parts is beyond our control, Teryair cannot guarantee the suitability of any product or part for a particular application and Teryair shall not be liable for any consequential damage or expense arising from the use or misuse of its products on any application. Teryair does not warranty bought out products or components such as electric motors and hardware but will assist in directing warranty queries to the dealer/manufacturer responsible. Teryair responsibility is limited solely to replacement or repair of defective Teryair products or components.

Dealer/End User shall have no right or remedy and Teryair shall have no liability or obligation under the warranty, if: (i) a Product is altered, changed, modified or tampered with in any way; (ii) a Product is damaged after deposit with the transporter for shipment; (iii) a Product is not properly preserved, packaged, stored, processed or handled after receipt; (iv) a Product is not used and maintained in accordance with Teryair's recommended operating and maintenance manuals, instructions and procedures, if any; (v) a Product is not properly incorporated or installed in, or not properly combined with, an Other Product; (vi) the issue with a Product is directly or indirectly attributable to, or directly or indirectly results from or arises out of, a failure, substandard performance or other issue with another product, material, component or part not supplied by Teryair; (vii) the issue with a Product is directly or indirectly attributable to, or directly or indirectly results from or arises out of, compliance with any design, specification or other specific requirement of Dealer/End User; (viii) a Product is used in a manner, with a substance or for a purpose other than the normal manner, substance and purpose for which it is intended or is otherwise subjected to abnormal use or service; (ix) a Product is subjected to a power surge, brown out or other similar occurrence; (x) the issue with a Product is directly or indirectly attributable to, or directly or indirectly results from or arises out of, normal wear and tear of such Product (including, without limitation, things such as worn seals, diaphragms, balls, O rings, gaskets, chisels, cutters, hoses and other such wearing components); (xi) the issue with a Product is directly or indirectly.

A handwritten signature in blue ink, appearing to read "Pratik", is written over a horizontal line.

Mr. Pratik Tikhande
Q.A. Manager
(Company Seal)

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