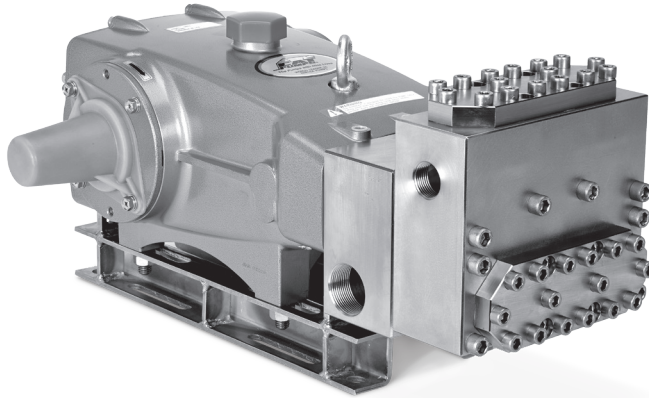




# PIJTTERSEN

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Model 3841 Shown  
(Shaft Protector included, mounting rails sold separately)

## FEATURES

- Triplex design delivers high efficiency and low pulsation.
- Durable dual V-Packings are lubricated and cooled by pumped liquid.
- Pre-set Lo-Pressure Seals provide secondary protection against external leaks and require no packing adjustments.
- Special high-density, polished, concentric plungers provide a true wear surface and extended seal life.
- Specially formulated Seals and V-Packings offer unmatched performance and extended life.
- Interchangeable inlet and discharge valves for easy servicing.
- Wet-end easily serviced without entering crankcase.
- Optimal cast iron crankcase for hazardous environments.
- Special flushed inlet manifold (K Model) permits flush for added cooling with high temperature liquids and lubrication with low lubricity liquids.

## CAUTIONS AND WARNINGS

All High Pressure Systems require a primary pressure regulating device (i.e. regulator, unloader) and a secondary pressure relief device (i.e. pop-off valve, relief valve). Failure to install such relief devices could result in personal injury or damage to pump or property. CAT PUMPS does not assume any liability or responsibility for the operation of a customer's high pressure system.

Read all CAUTIONS and WARNINGS before commencing service or operation of any high pressure system. The CAUTIONS and WARNINGS are included in each service manual and with each Accessory Data sheet. CAUTIONS and WARNINGS can also be viewed online at [www.catpumps.com/cautions-warnings](http://www.catpumps.com/cautions-warnings) or can be requested directly from CAT PUMPS.

## WARRANTY

View the Limited Warranty on-line at [www.catpumps.com/warranty](http://www.catpumps.com/warranty).

## 38 Frame Block-Style Stainless Steel Plunger Pump

**Standard  
Models**

**Flushed  
Models**

# 3841 3841K

## SPECIFICATIONS

|                                                                                | U.S. Measure         | Metric Measure       |
|--------------------------------------------------------------------------------|----------------------|----------------------|
| Flow .....                                                                     | 45 gpm               | (170 lpm)            |
| Pressure Range .....                                                           | 100 to 1000 psi      | (7 to 70 bar)        |
| Inlet Pressure Range* .....                                                    | Flooded to 70 psi    | (Flooded to 4.9 bar) |
| RPM .....                                                                      | 765 rpm              | (765 rpm)            |
| Bore .....                                                                     | 1.772"               | (45 mm)              |
| Stroke .....                                                                   | 1.890"               | (48 mm)              |
| Crankcase Capacity .....                                                       | 4.2 Qts.             | (4 L)                |
| Maximum Liquid Temperature .....                                               | 140°F                | (60°C)               |
| Above 130°F call CAT PUMPS for inlet conditions and elastomer recommendations. |                      |                      |
| Inlet Ports (2) .....                                                          | 1-1/2" NPTF          | (1-1/2" NPTF)        |
| Flushing Ports (2)*(3841K) .....                                               | 1/2" NPTF            | (1/2" NPTF)          |
| Discharge Ports (2) .....                                                      | 1" NPTF              | (1" NPTF)            |
| Shaft Diameter .....                                                           | 1.378"               | (35 mm)              |
| Weight .....                                                                   | 139 lbs.             | (63 kg)              |
| Dimensions .....                                                               | 24.4 x 18.11 x 9.37" | (620 x 460 x 238 mm) |

\* K Models: Special Flushed Inlet Manifold permits external flush for added cooling with high temperature liquids and lubrication with low lubricity liquids.

## ELECTRIC HORSEPOWER REQUIREMENTS

| FLOW        |     | PRESSURE   |            |             | RPM |
|-------------|-----|------------|------------|-------------|-----|
|             |     | psi<br>800 | psi<br>900 | psi<br>1000 |     |
| U.S.<br>gpm | lpm | bar<br>55  | bar<br>63  | bar<br>70   |     |
| 45          | 170 | 24.7       | 27.8       | 30.9        | 765 |
| 40          | 151 | 22.0       | 24.7       | 27.4        | 680 |
| 35          | 133 | 19.2       | 21.6       | 24.0        | 595 |

**DETERMINING  
THE PUMP R.P.M.**

Rated gpm = "Desired" gpm  
Rated rpm "Desired" rpm

**DETERMINING  
THE REQUIRED H.P.**

gpm x psi = Electric Brake  
1460 H. P. Required

**DETERMINING  
MOTOR PULLEY SIZE**

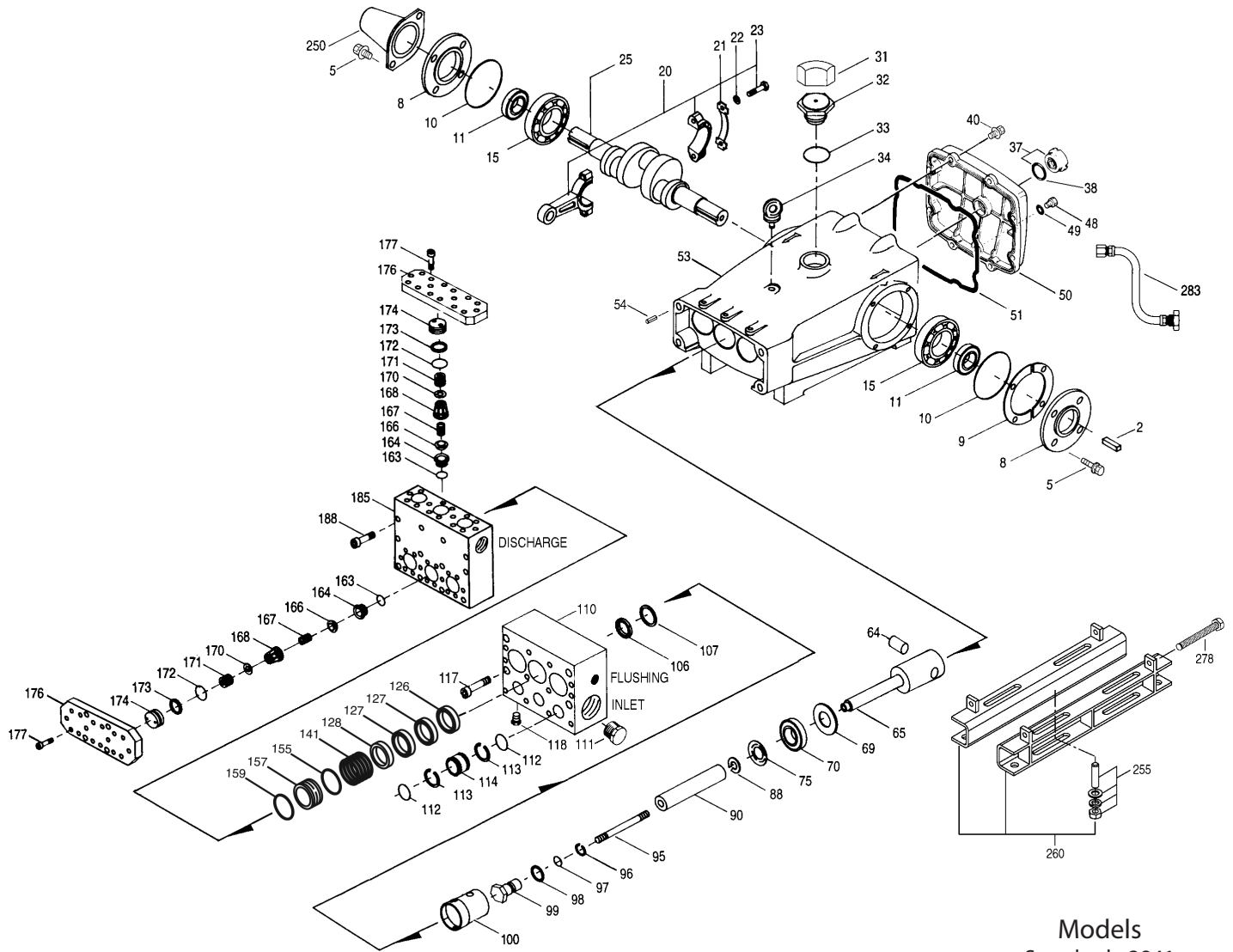
Motor Pulley O.D. = Pump Pulley O.D.  
Pump rpm Motor rpm

See complete Drive Packages [Inclds: Pulleys, Belts, Hubs, Key] Tech Bulletin 003.  
Refer to pump **Service Manual** for repair procedure and additional technical information.

# PARTS LIST

| ITEM | PART NUMBER |        |          |        | DESCRIPTION                                             | QTY |
|------|-------------|--------|----------|--------|---------------------------------------------------------|-----|
|      | 3841        | MATL   | 3841K    | MATL   |                                                         |     |
| 2    | 34021       | STL    | 34021    | STL    | Key (M10x8x70)                                          | 1   |
| 5    | 125753      | S      | 125753   | S      | Screw, HH Sems (M8x25)                                  | 8   |
| 8    | 44542       | AL     | 44542    | AL     | Cover, Bearing                                          | 2   |
| 9    | 815279      | FBR    | 815279   | FBR    | Shim, Split 2-Pc                                        | 0-2 |
| 10   | 12398       | NBR    | 12398    | NBR    | O-Ring, Bearing Cover - 70D                             | 2   |
| 11   | 13296       | NBR    | 13296    | NBR    | Seal, Oil, Crankshaft                                   | 2   |
| 15   | 29326       | STL    | 29326    | STL    | Bearing, Roller                                         | 2   |
| 20   | 121467      | TNM    | 121467   | TNM    | Rod, Connecting Assy (Incls: 21,22,23) [10/00]          | 3   |
| 21   | 126749      | STCP R | 126749   | STCP R | Washer, Locking                                         | 3   |
| 22   | 126593      | STCP R | 126593   | STCP R | Washer, Flat (M10)                                      | 6   |
| 23   | 122045      | STZP   | 122045   | STZP   | Screw, HH (M10x55)                                      | 6   |
| 25   | 29325       | FCM    | 29325    | FCM    | Crankshaft, Dual End (M48)                              | 1   |
| 31   | 828710      | PE     | 828710   | PE     | Protector, Oil Cap w/Foam Gasket                        | 1   |
| 32   | 43211       | ABS    | 43211    | ABS    | Cap, Oil Filler                                         | 1   |
| 33   | 14177       | NBR    | 14177    | NBR    | O-Ring, Oil Filler Cap - 70D                            | 1   |
| 34   | 126743      | STCP R | 126743   | STCP R | Bolt, Eye (M12x1.75) (For Lifting Pump Only)            | 1   |
| 37   | 92241       | —      | 92241    | —      | Gauge, Oil, Bubble w/Gasket - 80D                       | 1   |
| 38   | 44428       | NBR    | 44428    | NBR    | Gasket, Flat - 80D                                      | 1   |
| 40   | 125753      | S      | 125753   | S      | Screw, HH Sems (M8x25)                                  | 8   |
| 48   | 25625       | STCP   | 25625    | STCP   | Plug, Drain (1/4"x19BSP)                                | 1   |
| 49   | 23170       | NBR    | 23170    | NBR    | O-Ring, Drain Plug - 70D                                | 1   |
| 50   | 45936       | AL     | 45936    | AL     | Cover, Rear                                             | 1   |
| 51   | 16612       | NBR    | 16612    | NBR    | O-Ring, Rear Cover - 70D                                | 1   |
| 53   | 44487       | AL     | 44487    | AL     | Crankcase Assy (Incls: 34, 54)                          | 1   |
| 54   | 27488       | S      | 27488    | S      | Pin, Guide                                              | 2   |
| 64   | 43864       | CM     | 43864    | CM     | Pin,Crosshead                                           | 3   |
| 65   | 45116       | STCP   | 45116    | STCP   | Rod, Plunger                                            | 3   |
| 69   | 126587      | STZP   | 126587   | STZP   | Washer, Oil Seal                                        | 3   |
| 70   | 100488      | NBRS   | 100488   | NBRS   | Seal, Oil, Crankcase                                    | 3   |
|      | 44739       | FPM    | 44739    | FPM    | Seal, Oil, Crankcase                                    | 3   |
| 75   | 43865       | S      | 43865    | S      | Slinger, Barrier                                        | 3   |
| 88   | 45676       | S      | 45676    | S      | Washer, Keyhole (M16)                                   | 3   |
| 90   | 46806       | CC     | 46806    | CC     | Plunger (M45x145)                                       | 3   |
| 95   | 89778       | SS     | 89778    | SS     | Stud, Plunger Retainer (M10x135)                        | 3   |
| 96   | 20189       | PTFE   | 20189    | PTFE   | Back-up-Ring, Plunger Retainer                          | 3   |
| 97   | 11345       | NBR    | 11345    | NBR    | O-Ring, Plunger Retainer - 70D                          | 3   |
|      | 11375       | FPM    | 11375    | FPM    | O-Ring, Plunger Retainer                                | 3   |
|      | ◆ 701490    | EPDM   | ◆ 701490 | EPDM   | O-Ring, Plunger Retainer                                | 3   |
| 98   | 44085       | SS     | 44085    | SS     | Gasket, Plunger Retainer                                | 3   |
| 99   | 44084       | SS     | 44084    | SS     | Retainer, Plunger (M10)                                 | 3   |
| 100  | 44119       | PPG    | 44119    | PPG    | Retainer, Seal                                          | 3   |
| 106  | 48384       | NBR    | 48384    | NBR    | Seal, LPS w/SS-Spg                                      | 3   |
|      | 702013      | SFTB   | 702013   | SFTB   | Seal, LPS w/SS-Spg                                      | 3   |
|      | ◆ 46945     | EPDM   | ◆ 46945  | EPDM   | Seal, LPS w/SS-Spg                                      | 3   |
| 107  | 48380       | D      | 48380    | D      | Spacer, LPS                                             | 3   |
| 110  | 701865      | SS     | —        | —      | Manifold, Inlet, Block-Style                            | 1   |
|      | —           | —      | 701982   | SS     | Manifold, Inlet, Block-Style, Flushed (1/2" NPTF Flush) | 1   |
| 111  | 701116      | SS     | 701116   | SS     | Plug, Inlet (1-1/2" NPT)                                | 1   |
| 112  | 701632      | NBR    | 701632   | NBR    | O-Ring, Inlet Spacer                                    | 6   |
|      | 701328      | FPM    | 701328   | FPM    | O-Ring, Inlet Spacer                                    | 6   |
|      | ◆ 701973    | EPDM   | ◆ 701973 | EPDM   | O-Ring, Inlet Spacer                                    | 6   |
| 113  | 701329      | PTFE   | 701329   | PTFE   | Back-up-Ring, Inlet Spacer                              | 6   |
| 114  | 701327      | SS     | 701327   | SS     | Spacer, Inlet                                           | 3   |
| 117  | 701252      | SS     | 701252   | SS     | Screw, HSH (M14x100)                                    | 4   |
| 118  | 701077      | SS     | —        | —      | Plug (1/4" NPT)                                         | 3   |
| 126  | 48383       | D      | 48383    | D      | Adapter, Female                                         | 3   |
| 127  | 46813       | STGS   | 46813    | STGS   | V-Packing                                               | 6   |
|      | 703080      | SFTB   | 703080   | SFTB   | V-Packing                                               | 6   |
| 128  | 48386       | SS     | 48386    | SS     | Adapter, Male                                           | 3   |
| 141  | 49483       | SS     | 49483    | SS     | Spring, Coil, Large [See Tech Bulletin 107]             | 3   |
| 155  | 17784       | NBR    | 17784    | NBR    | O-Ring, V-Packing Spacer - 80D                          | 3   |
|      | 20138       | FPM    | 20138    | FPM    | O-Ring, V-Packing Spacer - 80D                          | 3   |
|      | ◆ 701658    | EPDM   | ◆ 701658 | EPDM   | O-Ring, V-Packing Spacer - 80D                          | 3   |
| 157  | 49506       | SS     | 49506    | SS     | Spacer, V-Packing [See Tech Bulletin 107]               | 3   |
| 159  | 17784       | NBR    | 17784    | NBR    | O-Ring, V-Packing Spacer - 80D                          | 3   |
|      | 20138       | FPM    | 20138    | FPM    | O-Ring, V-Packing Spacer - 80D                          | 3   |
|      | ◆ 701658    | EPDM   | ◆ 701658 | EPDM   | O-Ring, V-Packing Spacer - 80D                          | 3   |
| 163  | 26143       | NBR    | 26143    | NBR    | O-Ring, Seat - 80D                                      | 6   |
|      | 14331       | FPM    | 14331    | FPM    | O-Ring, Seat - 70D                                      | 6   |
|      | ◆ 701660    | EPDM   | ◆ 701660 | EPDM   | O-Ring, Seat                                            | 6   |
| 164  | 48393       | SS     | 48393    | SS     | Seat                                                    | 6   |
| 166  | 44108       | SS     | 44108    | SS     | Valve                                                   | 6   |
| 167  | 44109       | SS     | 44109    | SS     | Spring                                                  | 6   |
| 168  | 44728       | PVDF   | 44728    | PVDF   | Retainer, Spring                                        | 6   |
| 170  | 44729       | SS     | 44729    | SS     | Washer, Spring Retainer                                 | 6   |
| 171  | 44644       | SS     | 44644    | SS     | Spring, Coil (70kg), Valve Plug                         | 6   |
| 172  | 89827       | NBR    | 89827    | NBR    | O-Ring, Valve Plug - 90D                                | 6   |
|      | 11747       | FPM    | 11747    | FPM    | O-Ring, Valve Plug - 90D                                | 6   |
|      | ◆ 701494    | EPDM   | ◆ 701494 | EPDM   | O-Ring, Valve Plug - 70D                                | 6   |
| 173  | 48364       | D      | 48364    | D      | Back-up-Ring, Valve Plug                                | 6   |
| 174  | 701278      | SS     | 701278   | SS     | Plug, Valve                                             | 6   |
| 176  | 701316      | SS     | 701316   | SS     | Cover, Valve                                            | 2   |
| 177  | 87951       | S      | 87951    | S      | Screw, HSH (M10x30)                                     | 32  |
| 185  | 701866      | SS     | 701866   | SS     | Manifold, Discharge, Block-Style                        | 1   |
| 188  | 701279      | S      | 701279   | S      | Screw, HSH (M12x100)                                    | 12  |
| 196  | 701342      | SS     | 701342   | SS     | Plug, Discharge (1" NPT) Not Shown                      | 1   |

# EXPLODED VIEW



Models  
Standard - 3841  
Flushed - 3841K  
February 2014

|     | <b>3841</b>   | <b>MATL</b> | <b>3841K</b>  | <b>MATL</b> |                                                                                                         |   |
|-----|---------------|-------------|---------------|-------------|---------------------------------------------------------------------------------------------------------|---|
| 250 | 44516         | NY          | 44516         | NY          | Protector, Shaft w/2 Screws, Lockwashers and Washers (Included with Pump)                               | 1 |
| 255 | 34039         | S           | 34039         | S           | Assy, Direct Mount                                                                                      | 1 |
| 260 | 92674         | STZP R      | 92674         | STZP R      | Mount, Rail Assy (Incls: 34018)                                                                         | 1 |
| 275 | 990013        | STL         | 990013        | STL         | Hub, "B" (35mm w/keyway) [Tech Bulletin 003]                                                            | 1 |
| 278 | 80540         | ZP          | 80540         | ZP          | Screw, HH (M12x100) (Rail Adjusting Screw)                                                              | 1 |
| 283 | 34314         | —           | 34314         | —           | Kit, Oil Drain (3/8" x 48")                                                                             | 1 |
| 290 | 6124          | —           | 6124          | —           | Gasket, Liquid (3 oz.)                                                                                  | 1 |
| 299 | <b>901410</b> | <b>SS</b>   | —             | —           | Head, Complete, Block-Style                                                                             | 1 |
|     | —             | —           | <b>901411</b> | <b>SS</b>   | Head, Complete, Block-Style, Flushed                                                                    | 1 |
| 300 | 31934         | NBR         | 31934         | NBR         | Kit, Seal (Incls: 97, 106, 112, 113, 127, 155, 159)                                                     | 1 |
|     | 31961         | FPM         | 31961         | FPM         | Kit, Seal (Incls: 97, 106, 112, 113, 127, 155, 159)                                                     | 1 |
|     | ◆ 31923       | EPDM        | ◆ 31923       | EPDM        | Kit, Seal (Incls: 97, 106, 112, 113, 127, 155, 159)                                                     | 1 |
| 310 | 33835         | NBR         | 33835         | NBR         | Kit, Valve, Preassembled (Incls: 163, 164, 166, 167, 168, 170, 172, 173)                                | 2 |
|     | 31262         | FPM         | 31262         | FPM         | Kit, Valve, Preassembled (Incls: 163, 164, 166, 167, 168, 170, 172, 173)                                | 2 |
|     | ◆ 31264       | EPDM        | ◆ 31264       | EPDM        | Kit, Valve, Preassembled (Incls: 163, 164, 166, 167, 168, 170, 172, 173)                                | 2 |
| —   | 819000        | F           | 819000        | F           | Assembly, Crankcase, Cast Iron Conversion                                                               | 1 |
| 370 | —             | —           | <b>990663</b> | —           | Assembly, Flushing, 5 gal., 115V, 1.1 Amp, 1/2" NPT                                                     | 1 |
| 390 | 714500        | SS          | 714500        | SS          | C.A.T. (Inlet pressure stabilizer for RO and boosted applications)                                      | 1 |
| 391 | 714506        | SS          | 714506        | SS          | Adapter (2 per C.A.T.) (See Data Sheet for complete selection)                                          | 2 |
| 392 | 701828        | SS          | 701828        | SS          | Elbow Assy used with Adapter Assy 714506                                                                | 1 |
| —   | 6100          | —           | 6100          | —           | Oil, Case (12-21 oz. Bottles) ISO-68 Hydraulic (Fill to specified crankcase capacity prior to start-up) | 1 |
| —   | 6119          | —           | 6119          | —           | Lubricant, Antisieze (2 oz)                                                                             | 1 |

**Bold print part numbers are unique to a particular pump model. Italics are optional items.**

[ ] Date of latest production change. ◆ Silicone oil/grease required. R Components comply with RoHS Directive.

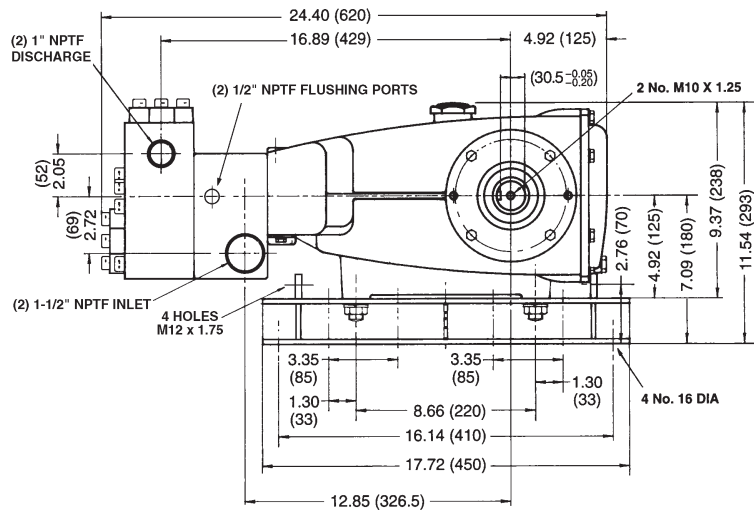
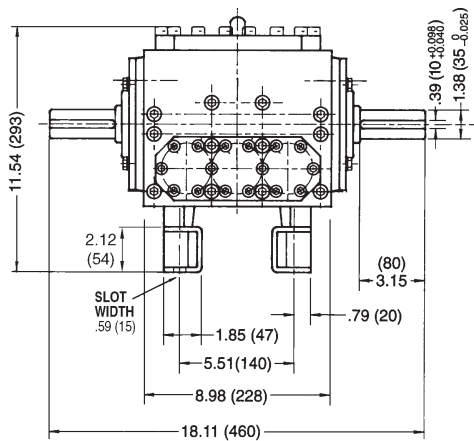
See Tech Bulletins 002, 003, 024, 035, 036, 041, 043, 053, 074, 077, 083, 095, 105 and 107 for additional information. **C.A.T. highly recommended for pressurized inlet, R.O. and industrial applications.**

MATERIAL CODES (Not Part of Part Number): ABS=ABS Plastic AL=Aluminum CC=Ceramic CM=Chrome-Moly D=Acetal EPDM=Ethylene Propylene Diene Monomer F=Cast Iron FBR=Fiber

FCM=Forged Chrome-moly FPM=Fluorocarbon NBR=Medium Nitrile (Buna-N) NBRs=Buna, Silicone Free NY=Nylon PPG=Glass Filled Polypropylene PTFE=Pure Polytetrafluoroethylene

PE=Polyethylene PVDF=Polyvinylidene Fluoride S=304SS SS=316SS SFTB=Special Blend PTFE Black SSZZ=316SS/Zamak STGS=Special Blend PTFE White STL=Steel

STCP=Steel/Chrome Plated STZP=Steel/Zinc Plated TNM=Special High Strength ZP=Zinc Plated



Models 3841, 3841K



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