

VECTOR™ Hydraulic Pump



HYTORC
The World's Most Trusted Industrial Bolting Systems

Vector Family Of Pumps



One Port



MINI



Four Port

Global Ready

| VOLTAGES | TORQUE UNITS | PRESSURE UNITS | TEMPERATURE UNITS | LANGUAGES |
|----------|--------------|----------------|-------------------|------------|
| 115V | Ft/LBS. | PSI | FAHRENHEIT (F) | GERMAN |
| 230V | NM | BAR | CELSIUS (C) | ENGLISH |
| 400V | KPM | | KELVIN (K) | FRENCH |
| | | | | SPANISH |
| | | | | DUTCH |
| | | | | PORTUGUESE |
| | | | | ITALIAN |
| | | | | RUSSIAN |
| | | | | TURKISH |



The first time the pump is commissioned the user is prompted to enter setup information (language, date, time, torque and units).

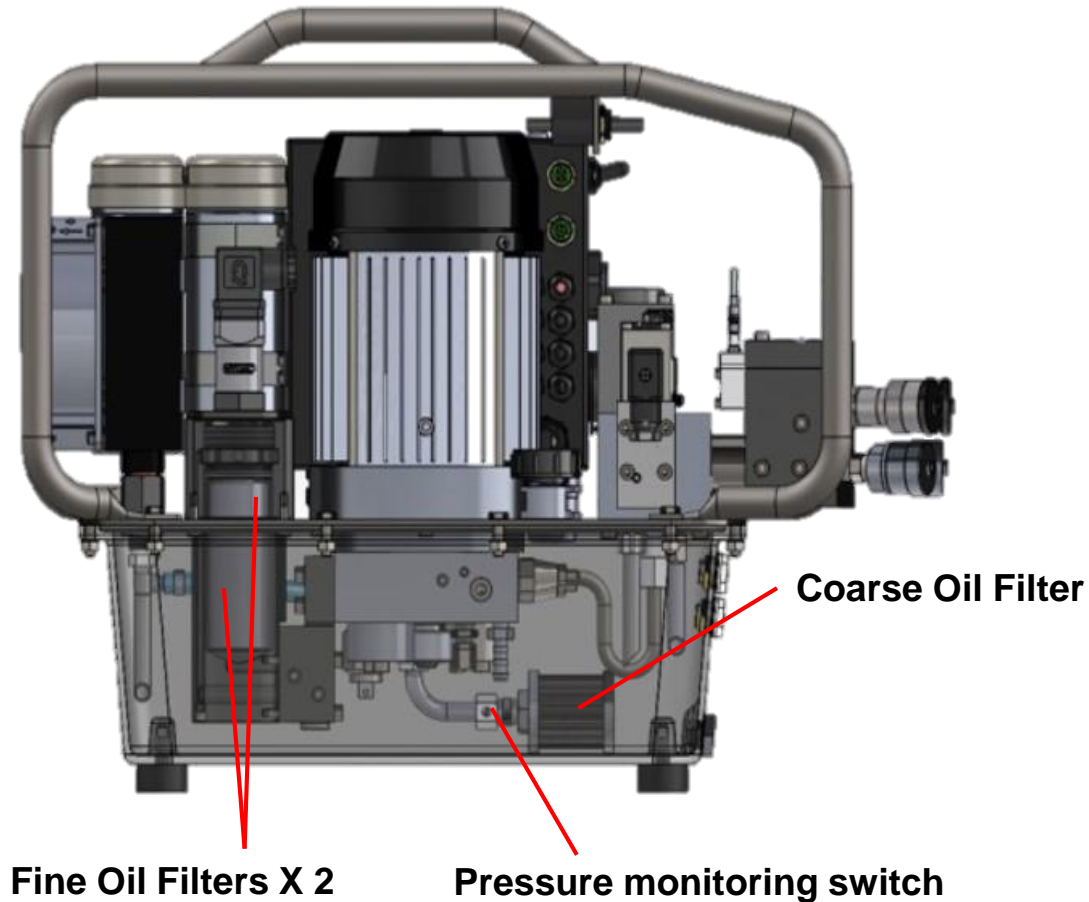
Modular

| Base Model | 4 Port Manual | 1 Port Fully Automatic | 4 Port Fully Automatic | Documentation (add software) | Bluetooth* | Torque & Angle* |
|--------------------------------------|----------------|------------------------|------------------------|---------------------------------------|---|--------------------|
| 1 Port Manual VECTOR-T1 | ✓ VECTOR-T4 | ✓ VECTOR-FA1 | ✓ VECTOR-FA4 | ✓ VECTOR-FA1-DOC VECTOR-FA4-DOC | ✓ VECTOR-FA1-DOC-BLU VECTOR-FA4-DOC-BLU | ✓ VECTOR-FA1-TA |
| 4 Port Manual VECTOR-T4 | | ✓ VECTOR-FA1 | ✓ VECTOR-FA4 | ✓ VECTOR-FA4-DOC | ✓ VECTOR-FA4-DOC-BLU | |
| 1 Port Fully Automatic VECTOR-FA1 | | | ✓ VECTOR-FA4 | ✓ VECTOR-FA4-DOC | ✓ VECTOR-FA1-DOC-BLU VECTOR-FA4-DOC-BLU | ✓ VECTOR-FA1-TA |
| 4 Port Fully Automatic VECTOR-FA4 | | | | ✓ VECTOR-FA4-DOC | ✓ VECTOR-FA4-DOC-BLU | |



*FUTURE
UPGRADES

Familiarization and Setup



3 Oil Filters Monitored By The Pump

- 100 Micron (100 μ) Coarse Filter
 - Monitored by a pressure sensor
- 20 Micron (20 μ) Fine Filter
 - Monitored by a 500 hour timer
- 3 Micron (3 μ) Fine Filter
 - Monitored by a 500 hour timer

32 Grade Oil is Recommend

Familiarization and Setup



LCD Screen

3 Red Buttons

1 Green Button

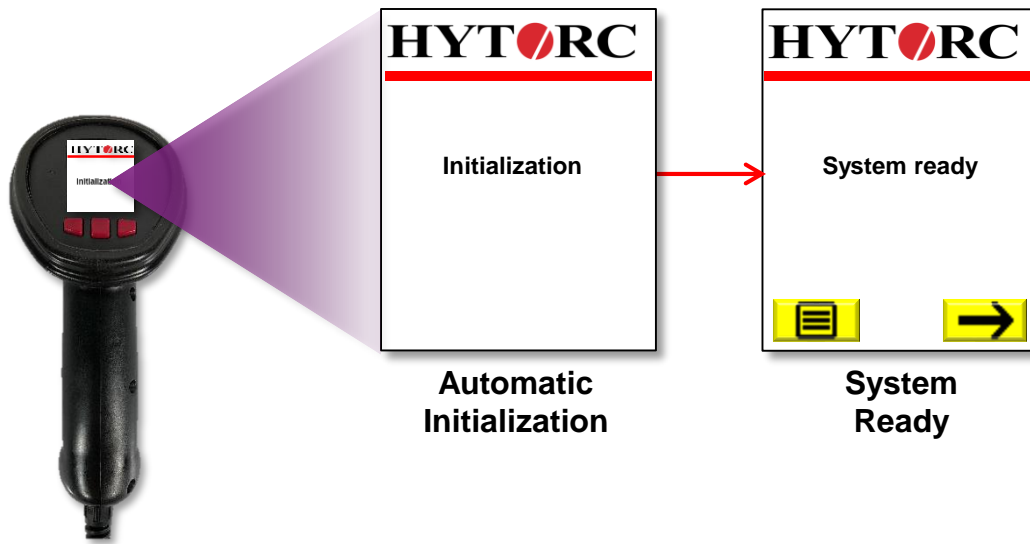


LED Status Indicator













Power Switch



green: ready
(pulsing): initialization
(const): error (see manual)
(flashing): check rotation

Familiarization and Setup



ICON KEY

-  Upward- Increase value
-  Downward- Decrease value
-  Return- Scroll Left
-  Continue- Scroll Right
-  One menu level up
-  Open the Settings menu
(password required)
-  Delete entry
-  Release Mode
-  Change Torque Value
-  Confirm
-  Abort
-  Stop the pump motor

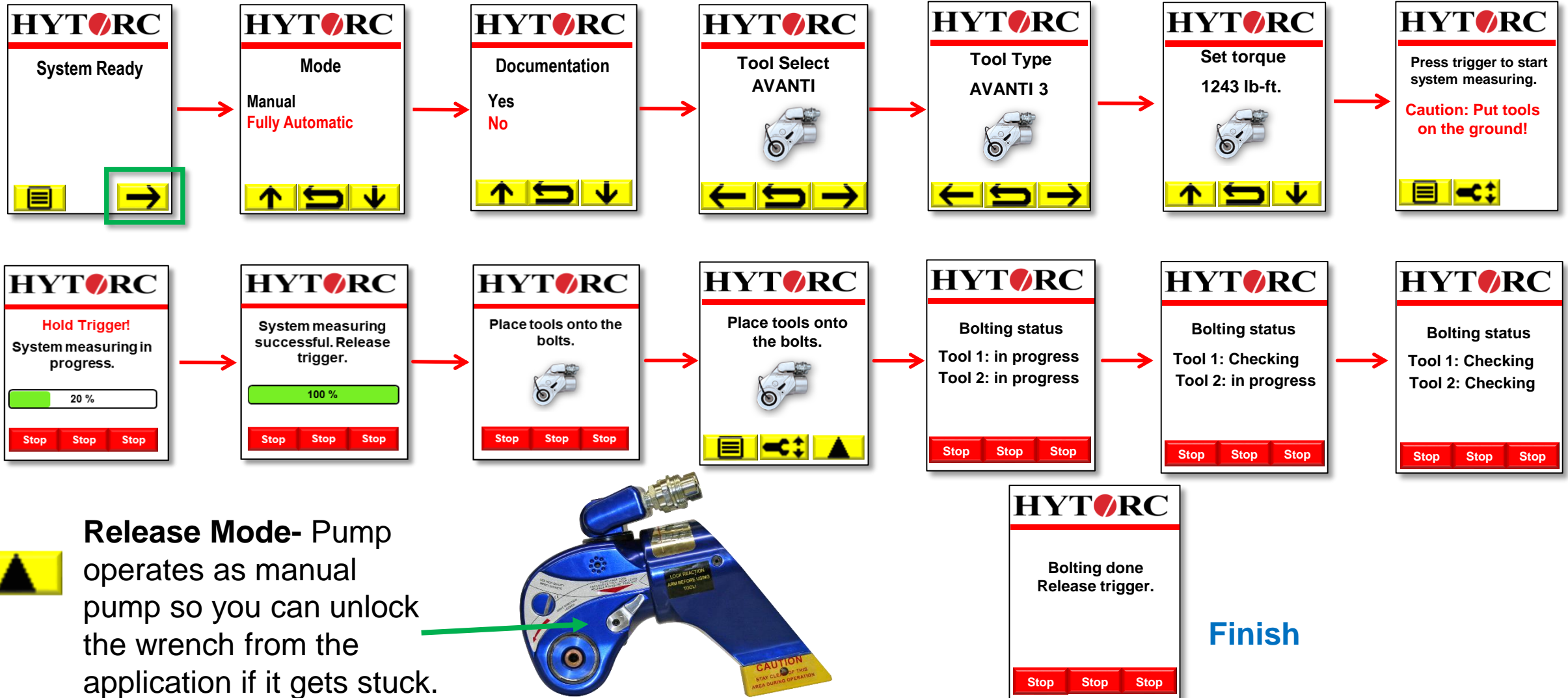
- Upon successful initialization the beeper sounds and LED shows solid green.
- Once initial setup is complete the display shows “System Ready”.
- Press  to start a new bolting job
- Press  to access menu. (Password Required)

- Operator Password:00000000 (That’s 8 Zero’s!)
- Supervisor Password:87654321

Getting Started

Start

Fully Automatic Setup








Release Mode- Pump operates as manual pump so you can unlock the wrench from the application if it gets stuck.



Documentation

USB Drive (E:) > Reports > Test Flange

```
*****
*                               *
*           H Y T O R C - D O C   *
*                               *
*****
Job ID:                AB01                (M)
Part ID:               FLANGE 33          (M)
Number of bolts:      4 bolts             (M)
Date:                 02/27/2019
Time:                 09:55:55
Employee ID:          (1) JJ68            (M)
Torque:               300 Ft.Lbs          (M)
Tool 1:               STEALTH 2           (M)
SN tool:              S2F1831-43         (M)
Tool 2:               STEALTH 2           (M)
SN tool:              S2F1831-47         (M)
Tool 3:               STEALTH 2           (M)
SN tool:              S2F1831-76         (M)
Tool 4:               STEALTH 2           (M)
SN tool:              S2F1831-90         (M)
Operation mode:       Fully automatic     (M)
Serial number of the system: 2128680002 (v1.03.02)
Tolerance range torque: +/- 3 %
*****
Curr.no   Initial torque   Final torque   Status   Tightening strokes
-----
1         278 Ft.Lbs          291 Ft.Lbs    okay     4
2         278 Ft.Lbs          291 Ft.Lbs    okay     4
3         278 Ft.Lbs          291 Ft.Lbs    okay     5
4         278 Ft.Lbs          291 Ft.Lbs    okay     3
*****
Status okay: The final torque is within the specified tolerance.
```

| Name | Date modified | Type | Size |
|---|-------------------|----------------------|------|
|  Report_Test Flange_4 bolt test_202.csv | 2/6/2020 10:00 AM | Microsoft Excel C... | 1 KB |
|  Report_Test Flange_4 bolt test_20200206_.json | 2/6/2020 10:00 AM | JSON File | 2 KB |
|  Report_Test Flange_4 bolt test_20200206_102921.html | 2/6/2020 10:00 AM | Chrome HTML Do... | 2 KB |
|  Report_Test Flange_4 bolt test_20200206_102921.rpe | 2/6/2020 10:00 AM | RPE File | 3 KB |
|  Report_Test Flange_4 bolt test_20200206_102921.txt | 2/6/2020 10:00 AM | Text Document | 3 KB |

VECTOR PUMP FILE EXPORT

- 5 File Types Generated
- All Exported, No Need To Choose
- All Put In Single Folder

REPORT NAMING CONVENTION

“Report” Job ID Part ID YearMonthDay Time

Documentation

*
* HYTORC - DOC *
*

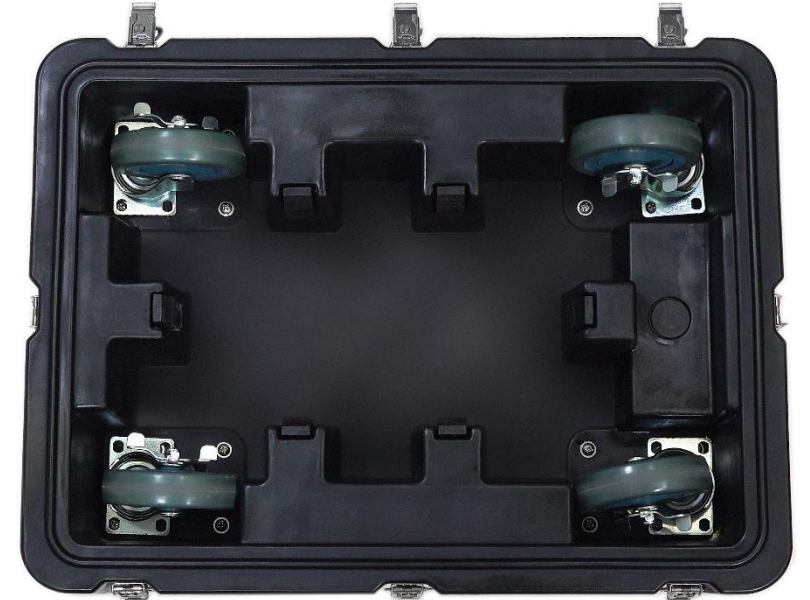
Job ID: Test job (M)
Part ID: Flange_33 (M)
Number of bolts: 12 bolts (M)
Date: 02/06/2020
Time: 10:29:21
Employee ID: John Smith_68 (M)
Torque: 1243 Ft.Lbs (M)
Tool 1: AVANTI 3 (M)
SN tool: XL 43-66 (M)
Tool 2: AVANTI 3 (M)
SN tool: XL 43-76 (M)
Tool 3: AVANTI 3 (M)
SN tool: XL 43-77 (M)
Tool 4: AVANTI 3 (M)
SN tool: XL 43-83 (M)
Operation mode: Fully automatic (M)
Serial number of the system: 2153300001 (v1.04.13)
Tolerance range torque: +/- 3 %

| No. | I. torque | E. torque | Status | Strokes |
|-----|------------|-------------|--------|---------|
| 1 | 604 Ft.Lbs | 1243 Ft.Lbs | okay | 5 |
| 2 | 604 Ft.Lbs | 1250 Ft.Lbs | okay | 5 |
| 3 | 683 Ft.Lbs | 1241 Ft.Lbs | okay | 4 |
| 4 | 604 Ft.Lbs | 1239 Ft.Lbs | okay | 5 |
| 5 | 603 Ft.Lbs | 1243 Ft.Lbs | okay | 4 |
| 6 | 606 Ft.Lbs | 1238 Ft.Lbs | okay | 4 |
| 7 | 615 Ft.Lbs | 1243 Ft.Lbs | okay | 5 |
| 8 | 607 Ft.Lbs | 1251 Ft.Lbs | okay | 4 |
| 9 | 604 Ft.Lbs | 1247 Ft.Lbs | okay | 4 |
| 10 | 606 Ft.Lbs | 1260 Ft.Lbs | okay | 4 |
| 11 | 603 Ft.Lbs | 1257 Ft.Lbs | okay | 5 |
| 12 | 602 Ft.Lbs | 1248 Ft.Lbs | okay | 4 |

Status okay: The final torque is within the specified tolerance.

No. : Curr.no
I. torque : Initial torque
E. torque : Final torque
Status : Status

Storage Case



Key Feature

- Removable Wheels
- Pump Operation While in Case
- Stackable
- Durable

CURRENTLY
AVAILABLE

Looking Ahead



Kit Requires Installation

Coming Soon!!!

VECTOR SCANNER

Works With:

- VECTOR FA DOC Pump
- VECTOR MINI FA DOC Pump

Sale:

- New VECTOR pump orders
- Current VECTOR pump owners



Additional Resources

VECTOR MINI

Hydraulic Pump

OVERVIEW



HYTORC

VECTOR

Hydraulic Pump

Overview



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VECTOR

Hydraulic Pump

Physical Inspection and Setup



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VECTOR

Hydraulic Pump

Manual Setup & Operation



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VECTOR

Hydraulic Pump

Fully Automatic without Documentation
Job Setup & Operation



HYTORC

VECTOR

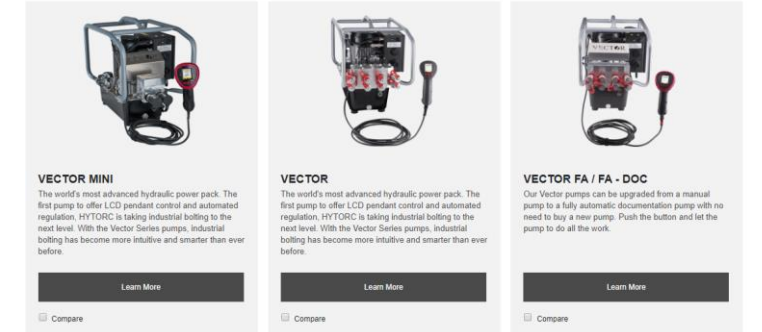
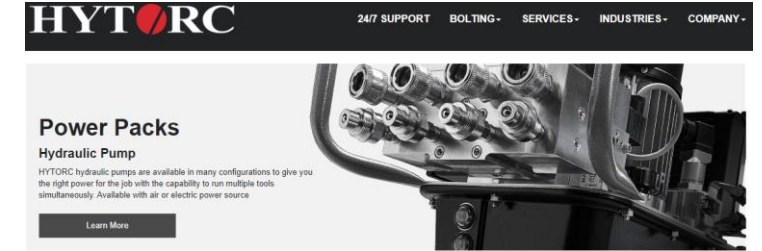
Hydraulic Pump

Fully Automatic with Documentation
Job Setup & Operation



HYTORC

HYTORC Website



Promotional Videos

Training Videos



Thank You



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