

## FIRE AND RESCUE PRODUCT OVERVIEW



POWER TAKE-OFFS AND HYDRAULIC COMPONENTS



Muncie Power Products, Inc. is a proud manufacturer of power take-offs and fluid power components for applications within the fire and rescue industry. Since the company was founded in 1935, Muncie Power Products has taken great pride in providing unparalleled service to each and every customer. In collaboration with other companies within the Interpump Group, Muncie Power Products has the ability to provide access to nearly every major component in a hydraulic system with the dependability you've come to expect from Muncie Power Products.

At Muncie Power Products, it's about more than building hydraulic components; it's about building trust.



1

#### TITAN<sup>™</sup> MC1 SERIES



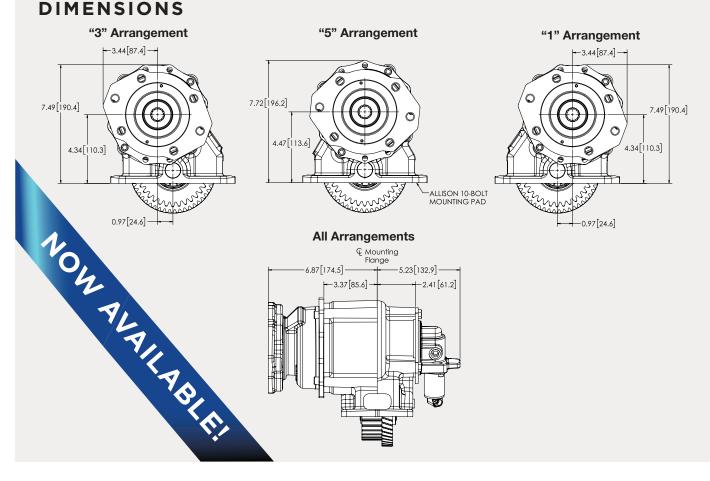
#### **TORQUE & HORSEPOWER**

SPEED RATIO	INTERMITTENT/ CONTINUOUS MAX HP @ 1,000 RPM	INTERMITTENT/ CONTINUOUS TORQUE
05	68 HP (50.70 kW)	351 lbs.ft. (475 Nm)
06	58 HP (43.25 kW)	302 lbs.ft. (409 Nm)
07	78 HP (58.16 kW)	412 lbs.ft. (558 Nm)
08	68 HP (50.70 kW)	357 lbs.ft. (484 Nm)
10	59 HP (43.99 kW)	310 lbs.ft. (420 Nm)
12	48 HP (35.79 kW)	251 lbs.ft. (340 Nm)
15	38 HP (28.33 kW)	202 lbs.ft. (273 Nm)

Approximate Weight: 47.2 lbs. (21.4 Kg.)

#### **KEY FEATURES**

- Maximum output speed of 4,000 RPM on water pump applications
- 10-bolt, medium-duty, clutch shift power take-off for Allison 3000/4000 transmissions
- Available with all options previously available on CS24/25 and HS24
- Increased clearance for easier bolt access
- Unique shift cover allows 360-degree rotation
- Improved clutch pack design for increased life
- Improved tapered roller bearings increase life
  of PTO
- Increased input shaft diameter to increase life
  and durability
- · Reduced leak paths
- Pump flange rotation at 30-degree intervals
- Maximized gear design for improved life and noise reduction
- Self-adjusting shaft break
- Compatible with Muncie Power's EX Drive



# CS40/41 SERIES

#### **TORQUE & HORSEPOWER**

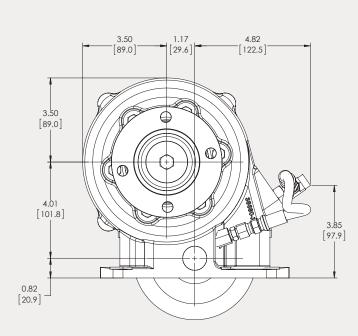
SPEED RATIO	INTERMITTENT MAX HP @ 1,000 RPM	INTERMITTENT TORQUE	CONTINUOUS TORQUE
07	114 HP (85 kW)	600 lbs.ft. (813 Nm)	420 lbs.ft. (569 Nm)
10	103 HP (76 kW)	545 lbs.ft. (739 Nm)	382 lbs.ft. (517 Nm)
12	93 HP (70 kW)	490 lbs.ft. (664 Nm)	343 lbs.ft. (465 Nm)

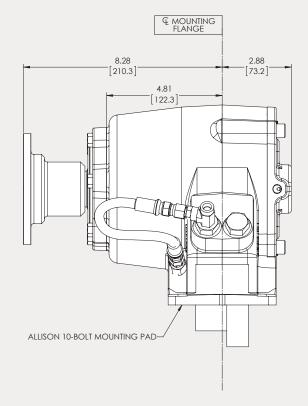
Approximate Weight: 69 lbs. (31.3 Kg.)

DIMENSIONS

#### **KEY FEATURES**

- Maximum output speed of 4,000 RPM on water pump applications
- 10-bolt, heavy-duty, clutch shift power take-off for Allison 3000/4000 transmissions
- Precision-ground gears allow for high-torque capacity with quiet operation
- Extra-large bearings and components
- 1410 Series remote mount output option for remote pump drives
- Fits most popular pumps requiring highpower input
- Direct mount flanges with ability to rotate for maximum clearance
- 2 assembly arrangements allowing PTO to be mounted shaft high or low on either side
- Standard-pressure lubrication







#### FR6Q SERIES



#### **TORQUE & HORSEPOWER**

SPEED RATIO	INTERMITTENT MAX HP / @ 1,000 RPM	INTERMITTENT TORQUE	CONTINUOUS TORQUE
09	39 HP (29 kW)	200 lbs.ft.	140 lbs.ft.
Stationary		(271 Nm)	(190 Nm)
09	22 HP (16 kW)	*120 lbs.ft.	120 lbs.ft.
Mobile		(162 Nm)	(162 Nm)

Approximate Weight: 35 lbs. (15.9 Kg.)

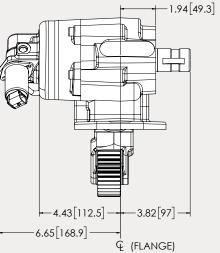
\*FR6Q limit in mobile applications continuous intermittent.

#### DIMENSIONS

#### KEY FEATURES

- New, quiet PTO solution for Ford
- Noise abatement mechanism eliminates virtually all gear rattle noise
- Fits 4x2 and 4x4 Ford Super Duty trucks, F-350 to F-550 with the Ford 6R140 transmission (may also be used on F-650 and F-750 trucks)
- Special feature for stationary and mobile now available in both gas and diesel
- Solenoid-activated
- Preconfigured wiring harness
- One-piece installation with rocker





### FR3C SERIES



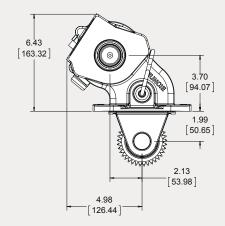
#### **KEY FEATURES**

- Fits F-650 and F-750 with the Ford TorqShift transmission
- Utilizes maximum torque available from transmission
- One-piece housing, fewer leak points
- Complete, integrated wiring harness
- Keyed shaft output
- Enhanced gear set

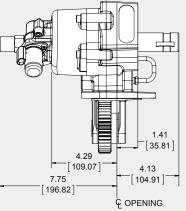
#### **TORQUE & HORSEPOWER**

SPEED RATIO	INTERMITTENT MAX HP @ 1,000 RPM	INTERMITTENT TORQUE	CONTINUOUS TORQUE
09	45 HP (34 kW)	237 lbs.ft. (321 Nm)	166 lbs.ft. (225 Nm)

DIMENSIONS















SSV2/4 Series

SPEED RATIOS	MAXIMUM HP @ 1,000 RPM	MAX TORQUE
1	SSH2 Series Output: 178 HP (133 kW)	Throughput Intermittent: 14,000 lbs.ft. (21,000 Nm) SSH2 Series Output: (940 lbs.ft. (1,274 Nm)
2	SSV2 Series Output: 152 / 82 (113 / 61 kW)	Throughput Intermittent: 14,000 lbs.ft. (21,000 Nm) SSV2/4 Series Output: 796 / 433 lbs.ft. (1,079 / 587 Nm)

Approximate Weight SSH2: 234 lbs. (106.1 Kg.) Approximate Weight SSV2/4: 255 lbs. (115.7 Kg.)

SSH2 & SSV2

SERIES

#### **KEY FEATURES**

- Ultra, heavy-duty PTOs used when auxiliary power requirements exceed capacity of transmission mounted PTOs
- Upright or horizontal versions
- Precision-ground gearing for quiet, high-torque power delivery
- Air-shift controls for easy activation
- Individual output controls
- Clutch shift option so outputs can be individually activated without stopping other functions
- Frame mounting kit option provides easy installation

#### SPD-1001D SYSTEM



The SPD-1001D system protection device offers over-speed protection and interface for a wide range of interlock devices. Accepting both RPM and MPH inputs, the SPD-1001D accepts additional safety switch inputs such as pressure switches, neutral switches, oil level/temperature switches, etc. The SPD-1001D works on both 12VDC and 24VDC systems and can be mounted in the cab or engine compartments. Use this system protection device with clutch shift PTOs, clutch pumps, the Power-Miser and the Powr-Pro.



#### **KEY FEATURES**

- Standard prepackaged or custom assemblies
- SAE O-ring porting
- Horizontal or vertical mounting
- 60-micron suction line strainer and 40-micron breather cap standard
- Optional polyethylene motor cover, mounting brackets and flow controls
- Steel or translucent polyethylene reservoirs
- 12VDC or 24VDC motor with thermal overload protection
- Large selection of directional valve choice
- 2-button, corded control or manual, hand valve operators

Approximate Weight: 32 lbs. (14.5 Kg.) with std. 5.3 poly reservoir. Add 10 lbs. (4.5 Kg.) for largest 15.8 qt. steel reservoir

#### PV SERIES PISTON PUMPS

#### **KEY FEATURES**

- Available in three series L, J and E
- Sizes range from 30-147 cc.
- Continuous pressures up to 4,495 PSI
- Intermittent pressures up to 5,800 PSI
- Viton shaft seal
- Pump controls for pressurecompensated or load-sense control
- Compact design and lightweight package
- High volumetric efficiency
- Low heat generation
- High self-priming speed
- Controlled response and cycles
- Heavy-duty, tapered roller bearings







PVE

MAX OP. PRESSURE	3,045 PSI (210 BAR)	MAX OP. PRESSURE	4,495 PSI (310 BAR)	MAX OP. PRESSURE	4,495 PSI (310 BAR)
FLOW RATE (@ 1,000 RPM)*	7.9 GPM (29.9 LPM)	FLOW RATE (@ 1,000 RPM)*	11.9-19.8 GPM (45.1-75.0 LPM)	FLOW RATE (@ 1,000 RPM)*	26.4-38.8 GPM (99.9-146.9 LPM)
DISPLACEMENT	1.83 cu.in. (30 cc.)	DISPLACEMENT	2.75-4.58 cu.in. (45 cc.)	DISPLACEMENT	6.10-8.97 cu.in. (100-147 cc.)
APPROX. WEIGHT	53 lbs. (24 Kg.)	APPROX. WEIGHT	58.8 lbs. (26.7 Kg.)	APPROX. WEIGHT	121 lbs. (54.9 Kg.)



#### GEAR PUMPS





#### **KEY FEATURES**

- Bi-rotational feature helps reduce inventory requirements
- Higher pressure capability up to 3,000 PSI
- Speeds up to 3,600 RPM PK Series and 3,000 RPM PL Series
- All cast iron construction
- Stronger solid, 1-piece shafts
- Versatile, 4-port design for installation flexibility
- Heavy-duty roller bearings for longer product life
- 4 shaft types and 4 mounting flanges PK Series; 5 shaft types and 2 mounting flanges – PL Series

#### PUMP AND MOTOR SPECIFICATIONS - PK SERIES

MODEL NO.	DISPL. CU.IN. (CC)	MAX* RPM	MIN* RPM	MAX* PRES PSI (BAR)	N.P.T. SIDE PORT	O.D.T. SIDE PORTS	N.P.T. REAR PORTS	PUMP O.D.T. REAR PORTS	MOTOR O.D.T. REAR PORTS	APPROX. WT. LBS (KG)
PK1-04*	0.98 (16)	3,600	600	3,000 (207)	1/2	5⁄8	1	1	1	26.5 (12.1)
PK1-06	1.47 (24)	3,600	600	3,000 (207)	3⁄4	3⁄4	1	1	1	27.8 (12.6)
PK1-08	1.97 (32)	3,000	600	3,000 (207)	1	1	1	1	1	29.0 (13.1)
PK1-11	2.46 (40)	3,000	600	3,000 (207)	1	1	1	1	1	30.3 (13.8)
PK1-13	2.96 (48)	2,500	600	3,000 (207)	1-1⁄4	1-1⁄4	1	1	1	31.6 (14.3)
PK1-15	3.45 (57)	2,500	600	2,500 (172)	1-1⁄4	1-1⁄4	1	1	1	33.0 (15.0)
PK1-17	3.94 (65)	2,500	600	2,500 (172)	1-1⁄4	1-1⁄4	1	1	1	34.1 (15.5)

MAX INLET VACUUM: 5 in.hg. (.17 BAR) MAX INLET BACK PRESSURE: 150 PSI (10 BAR) \*PK1-04 IS NOT RECOMMENDED TO BE USED AS A MOTOR

#### PUMP AND MOTOR SPECIFICATIONS - PL SERIES

MODEL NO.	DISPL. CU.IN.(CC)	MAX RPM	MIN RPM	MAX PRES PSI (BAR)	N.P.T. SIDE PORT	O.D.T. SIDE PORTS	N.P.T. REAR PORTS	PUMP O.D.T. REAR PORTS	APPROX. WT. LBS. (KG)
PL1-14	3.18 (52)	3,000	600	3,000 (207)	1	1	1-1⁄2	1-1⁄4	39.9 (18.1)
PL1-16	3.82 (63)	3,000	600	3,000 (207)	1	1	1-1⁄2	1-1⁄4	41.7 (18.9)
PL1-19	4.46 (73)	3,000	600	3,000 (207)	1-1⁄4	1-1⁄4	1-1/2	1-1⁄4	43.4 (19.7)
PL1-23	5.20 (85)	3,000	600	2,500 (172)	1-1⁄4	1-1⁄4	1-1⁄2	1-1⁄4	45.2 (20.5)
PL1-25	5.73 (93)	2,500	600	2,500 (172)	1-1⁄2	1-1⁄2	1-1⁄2	1-1⁄4	46.9 (21.3)
PL1-27	6.37 (104)	2,500	600	2,500 (172)	1-1⁄2	1-1⁄2	1-1⁄2	1-1⁄4	48.7 (22.1)
PL1-30	7.01 (115)	2,500	600	2,000 (138)	1-1⁄2	1-1⁄2	1-1⁄2	1-1⁄4	51.0 (23.2)

MAX INLET VACUUM - 5 in.hg. (.17 BAR) MAX INLET BACK PRESSURE - 150 PSI (10 BAR)

#### OPTIMUM GEAR PUMPS



#### **KEY FEATURES**

- Features unique OPTI-Grip® technology
- Available in tandem and triple configurations
- 13-tooth gear design for smoother operation
- Bi-rotational design
- Higher pressure capability up to 4,350 PSI
- Speeds up to 3,600 RPM W Series and 3,000 RPM – X Series
- Long-lasting, high-performance bushings
- Noise reducing, quiet design

#### **PUMP AND MOTOR SPECIFICATIONS - W SERIES**

**X** Series

MODEL NUMBER	DISPLACEMENT IN <sup>3</sup> (CC)	MAX RPM	MIN RPM	MAX PRES PSI (BAR)	PORTS (ODT) SIDE & REAR	PORTS (SF) SIDE ONLY	APPROX. WEIGHT LBS (KG)
W06	1.45 (23.9)	3,600	800	4,350 (300)	-16	1.50" X 1.00"	40.8 (18.5)
W08	1.96 (32.2)	3,600	600	4,350 (300)	-16	1.50" X 1.00"	42.7 (19.4)
W11	2.42 (39.7)	3,250	600	4,350 (300)	-16	1.50" X 1.00"	44.0 (19.9)
W13	2.92 (47.9)	3,000	600	4,000 (275)	-20	1.50" X 1.00"	44.9 (20.4)
W15	3.46 (56.8)	2,750	600	3,750 (260)	-20	2.0" X 1.25"	47.2 (21.4)
W17	3.96 (65.0)	2,500	600	3,500 (240)	-20	2.0" X 1.25"	48.7 (22.1)
W19	4.37 (71.6)	2,500	600	3,250 (225)	-20	2.0" X 1.25"	49.5 (22.4)
W21	4.87 (79.8)	2,500	600	3,000 (210)	-20	2.0" X 1.25"	50.7 (23.0)

#### PUMP AND MOTOR SPECIFICATIONS - X SERIES

MODEL NUMBER	DISPLACEMENT IN <sup>3</sup> (CC)	MAX RPM	MIN RPM	MAX PRES PSI (BAR)	PORTS (ODT) SIDE & REAR	PORTS (SF) SIDE ONLY	APPROX. WEIGHT LBS (KG)
X14	3.18 (52.1)	3,000	800	4,350 (300)	-20	2.0" X 1.25"	52.9 (24.0)
X16	3.83 (62.9)	3,000	600	4,350 (300)	-20	2.0" X 1.25"	54.7 (24.8)
X19	4.44 (72.8)	3,000	600	3,750 (260)	-24	2.0" X 1.25"	55.9 (25.3)
X23	5.20 (85.3)	2,750	600	3,500 (240)	-24	2.0" X 1.25"	58.0 (26.3)
X25	5.69 (93.4)	2,750	600	3,250 (225)	-24	2.0" X 1.25"	59.3 (26.9)
X27	6.35 (104)	2,500	600	3,000 (210)	-24	2.0" X 1.25"	61.1 (27.7)
X30	7.01 (115)	2,500	600	2,500 (190)	-24	2.0" X 1.5"	62.9 (28.5)
X33	7.78 (128)	2,500	600	2,500 (190)	-24	2.0" X 1.5"	65.0 (29.5)
X36	8.43 (138)	2,250	600	2,250 (155)	-24	2.0" X 1.5"	67.0 (30.4)

#### Notes:

- MAX RPM is shown at 0 in.hg. and with an appropriately sized inlet hose
- MAX motor back pressure is not to exceed 150 PSI (10 BAR)
- MAX inlet vacuum is not to exceed 5 in.hg. (0.17 BAR)
- Weights shown are for single, direct mount pumps
- Porting shown is standard pump porting, other porting configurations are available
- · Motor applications will require a case drain to be plumbed directly back to the reservoir due to excessive return line pressures or surges





FLOW RATE Nominal: Maximum:	13 GPM (50 LPM) 16 GPM (60 LPM)
MAX PRESSURE 1-3 Sections: 4-6 Sections: 7-10 Sections:	5,440 PSI (375 BAR) 5,075 PSI (350 BAR) 4,710 PSI (325 BAR)
MAX BACK PRESSURE	365 PSI (25 BAR)



FLOW RATE Nominal: Maximum:	21 GPM (80 LPM) 30 GPM (114 LPM)
MAX PRESSURE 1-3 Sections: 4-6 Sections: 7-10 Sections:	5,075 PSI (350 BAR) 4,650 PSI (320 BAR) 4,350 PSI (300 BAR)
MAX BACK PRESSURE	365 PSI (25 BAR)



17 SERIES	
FLOW RATE Nominal: Maximum:	12 GPM (45 LPM) 18 GPM (68 LPM)
MAX PRESSURE	3,500 PSI (242 BAR)
MAX BACK PRESSURE	150 PSI (10 BAR)

#### L125 SECTIONAL LOAD SENSE



FLOW RATE Nominal: Maximum: Inlet: Work Section:	33 GPM (125 LPM) 40 GPM (150 LPM) 26 GPM (100 LPM)
MAX PRESSURE	5,075 PSI (350 BAR)
STAND BY PRESSURE	200 PSI (14 BAR)
MAX BACK PRESSURE	145 PSI (10 BAR)

### HYDRAULIC OIL FILTERS



RATING	Return Line: 10-25 microns (12-25 µm) Tank Top or High-pressure Lines: 10 microns (10 µm)	
MAX FLOW RATE	24-100 GPM (90.9-378.5 LPM)	
MEDIA TYPE	Microglass or Paper	

#### **KEY FEATURES**

#### **Return Line**

- An effective and economical means of maintaining system cleanliness
- Industry standard elements allow for easy maintenance
- Available in 6 sizes with highpressure options
- Optional filter indicator gauge to tell when filter element needs replaced

#### Tank Top Return Line

- Available in 4 sizes
- Optional filter indicator gauge to tell when filter element needs replacement

#### **High-pressure Line**

- Filters out contamination before it reaches a valve or scores a cylinder
- Often required to meet the demands of high-horsepower, continuous-duty applications
- Available in 2 sizes



#### LOW SPEED HIGH TORQUE MOTORS



**MB** Series

MH Series

#### **KEY FEATURES**

- Features 13 different displacement sizes
- Shaft and mounting options to match the most common SAE standards\*
- Gerotor design provides an economical alternative to more complex roller gerotor designs
- Low-port profile is suitable for application with limited space
- Built-in check valves increase seal life and offer versatility
- Spool valve design offers smooth operation over a wide range of speeds and torques

Features	16	different	displacement	sizes

- Shaft and mounting options to match the most common SAE standards\*
- Roller gerotor design reduces sliding friction between the rotor and stator
- High-pressure shaft offers superior life and performance
- Spool valve design gives smooth operation over a wide speed and torque range
- 3-pressure zone design provides lower case pressure and extended shaft seal life
- Features 10 different displacement sizes
- Shaft and mounting options to match the most common SAE standards\*
- 3-zone commutator valve for higher flows and higher pressure applications
- Heavy-duty, tapered roller bearings for extra side load capacity
- Heavy-duty drive link with larger pitch diameter than competitors for greater resistance to pressure and torque spikes
- Standard case drain with integral internal drain for extended shaft seal life

\*Other options available, call for information and availability

MAX OP.	1,400-1,800 PSI
PRESSURE	(97-124BAR)
MAXIMUM	9-16 GPM
FLOW RATE	(35-60 LPM)
THIRTEEN DISPLACEMENT SIZES	1.5-23.5 cu.in. (24.5-385.8 cc.)
APPROX.	11.4-15.2 lbs.
WEIGHT	(5.2-6.9 Kg.)

MAX OP.	1,500-2,500 PSI
PRESSURE	(104-172 BAR)
MAXIMUM	12-16 GPM
FLOW RATE	(45-61 LPM)
SIXTEEN DISPLACEMENT SIZES	2.5-24.4 cu.in. (40-400 cc.)
APPROX.	13.0-20.1 lbs.
WEIGHT	(5.9-9.1 Kg.)

MAX OP.	1,750-3,000 PSI
PRESSURE	(121-207BAR)
MAXIMUM	16-20 GPM
FLOW RATE	(61-76 LPM)
TEN DISPLACEMENT SIZES	4.8-30.3 cu.in. (79-496 cc.)
APPROX.	24.9-31.2 lbs.
WEIGHT	(11.3-14.2 Kg.)



**MJ Series** 



#### **REQUEST A COPY** OR DOWNLOAD ONLINE

**Understanding Reference Manuals:** Available reference manuals from Muncie Power Products include the Understanding Truck Mounted Hydraulic Systems and Understanding Power Take-off Systems. In Understanding Truck Mounted Hydraulic Systems you'll learn what components make up a truck mounted hydraulic system, how a truck mounted or mobile hydraulic system works and why truck mounted hydraulic systems sometimes fail to perform as expected. Its companion manual – Understanding Power Take-off Systems – focuses specifically on PTOs, defining a power take-off, its different aspects and types and how to install and select the appropriate PTO.

**QR Catalog:** The *Muncie Power Products PTO Quick Reference Catalog* makes spec'ing out a power take-off for your transmission quick and simple. Serving as a resource tool for the most appropriate PTO specs, the catalog is available upon request through Muncie Power's customer service team or online via its M-Power Specification Software. *Check online for the most up-todate information, as the catalog is continually updated.* 



**Literature:** Muncie Power Products offers a variety of literature available for free via online download or by request through its customer service team. Depending on the product, available literature can include a marketing brochure, spec brochure, data sheet, installation instructions and service parts manual.



Access online at munciepower.com or give us a call at 800-367-7867.





With many years of combined experience, Muncie Power's team offers industry-leading customer service for its full line of products from power takeoffs to hydraulic components.

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