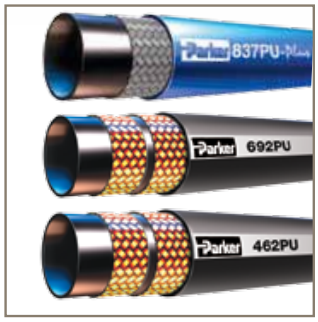
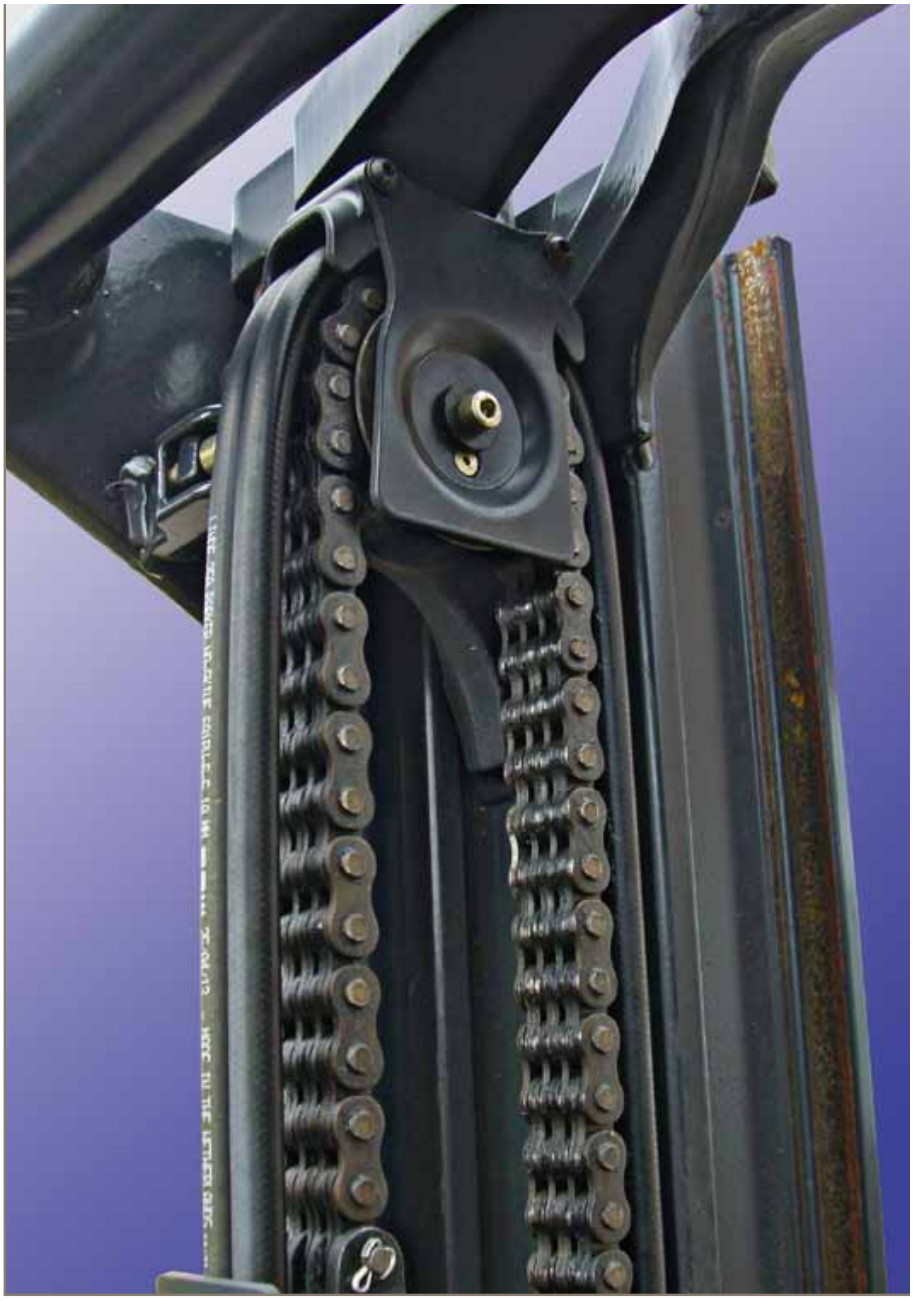










New High-Performance PU-Cover Rubber Hoses

The Fusion of Two Worlds in One



Parker

ENGINEERING YOUR SUCCESS.

POLYURETHANE AND RUBBER

A combination with undreamed-of possibilities

Parker rubber hoses with polyurethane-cover – the range for the future

With hoses 462PU, 692PU and 837PU-Plus, Parker has realised the combination of synthetic rubber and polyurethane.

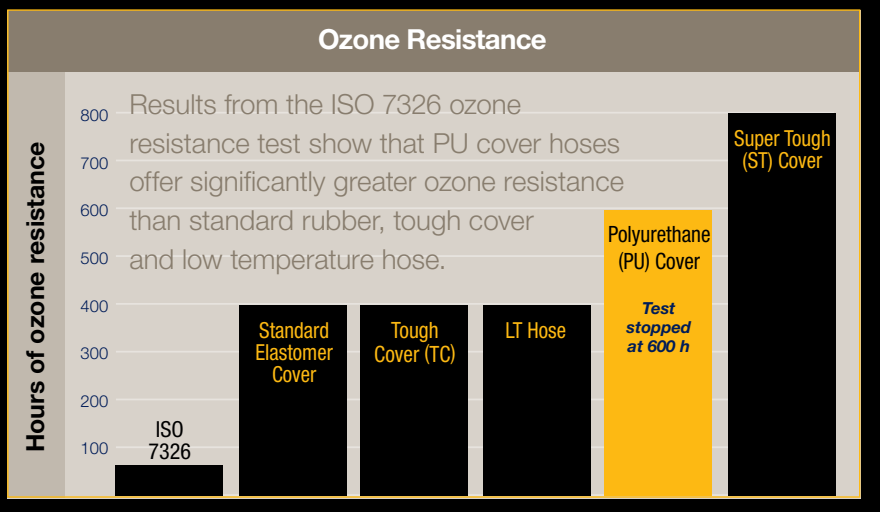
Due to the manufacturing process and the combination of the two materials, these hoses reach new dimensions in terms of quality and product properties.

The **outstanding properties**

- Excellent mechanical strength
- Extreme resistance to wear and tear
- Very high impact strength
- Extraordinary damping properties
- Outstanding resistance against ozone, weathering, humidity, microbes and UV radiation
- Resistant to oils, fats and solvents
- Resistant to extremely low temperatures
- Marginal plastic deformation
- Halogen free, meets RoHS and REACH requirements
- Seawater resistant







MAIN FEATURES

of Parker PU-covered rubber hoses at a glance

Ozone resistance



Polyurethane hoses (pure)

Rubber hoses (pure)

PU-cover rubber hoses **462PU / 692PU / 837PU-Plus**

ozone resistance

Abrasion resistance



Polyurethane hoses (pure)

Rubber hoses (pure)

PU-cover rubber hoses **462PU / 692PU / 837PU-Plus**

abrasion resistance

Resistant to temperature



Polyurethane hoses (pure)

Rubber hoses (pure)

PU-cover rubber hoses **462PU / 692PU / 837PU-Plus**

temperature range

Flexibility



Polyurethane hoses (pure)

Rubber hoses (pure)

PU-cover rubber hoses **462PU / 692PU / 837PU-Plus**

flexibility

Pressure / Torsion resistance



Polyurethane hoses (pure)

Rubber hoses (pure)

PU-cover rubber hose **837PU-Plus** **> 1 million**

test cycles

Low-cost assembly



Polyurethane hoses (pure)

Rubber hoses (pure)

PU-cover rubber hose **837PU-Plus**

low nipple insertion forces

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APPLICATIONS

where Parker PU-cover rubber hoses
make a world of difference

















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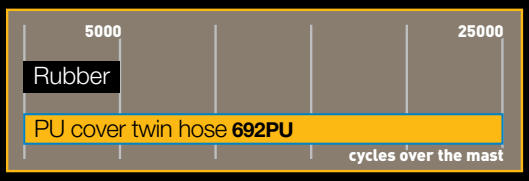
462PU AND 692PU

Rubber hoses with highly abrasion-resistant polyurethane-cover

Working temperatures of -45/-50 °C up to +100 °C

Synthetic rubber tube resistant to hydraulic fluids, dry air, water, watery emulsions, bio-oil etc.

A comparison test between rubber and PU-cover hoses was performed for material handling applications to estimate the abrasion resistance. A rubber twin hose and a PU covered twin hose (692PU size -6) were mounted over a forklift mast and started to move up and down measuring the number of cycles. The PU-cover twin hose reached more than 25,000 cycles performing five times better than the standard rubber hose.



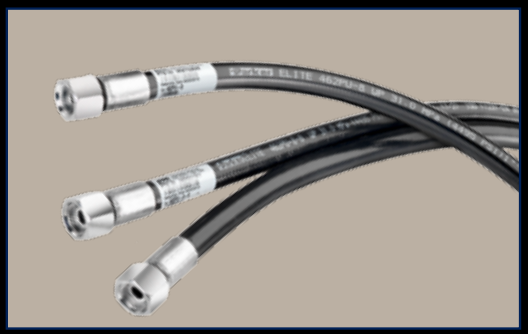
What hose type 462PU and 692PU have in common is the combination of the rubber tube with the polyurethane-cover for the best performance – a combination with a design factor of 4:1 which makes this hose range outstanding on forklift trucks. Due to the better performance of the PU-cover in terms of abrasion, ozone and cold resistance, both hoses are the preferred solution for the more demanding environment conditions. The PU-cover also delivers the possibility to produce twin hoses with even higher working pressures than standard rubber hoses and will answer the requirements of larger materials handling applications where higher working pressures and abrasion resistance are the critical factors.

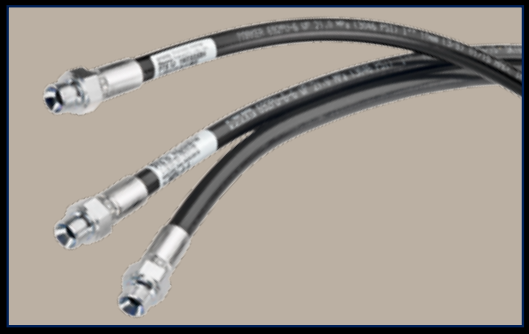
462PU

Type 462PU is a compact, medium pressure hydraulic hose with two steel wire braids and a working pressure from 28.0 MPa up to 42.5 MPa

692PU

Type 692PU is also a compact medium pressure hydraulic hose with one or two steel wire braids and a constant working pressure of 21.0 MPa.





Types 462PU and 692PU have been specially developed to meet the challenges of over-the-sheave applications of twin hose. This is why their main applications are forklift masts, telehandlers and materials handling equipment.

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837PU-PLUS

Low pressure Push-Lok rubber hose with highly abrasion-resistant polyurethane-cover

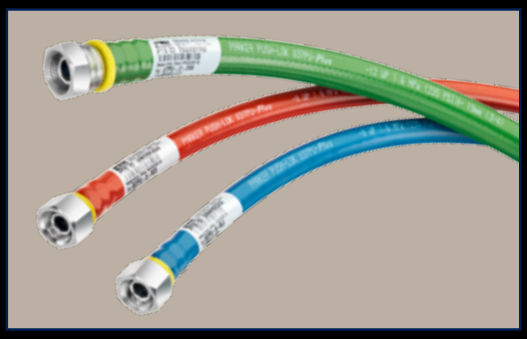
Hose cover made of high-quality polyurethane; featuring high resistance to welding spots and abrasion.

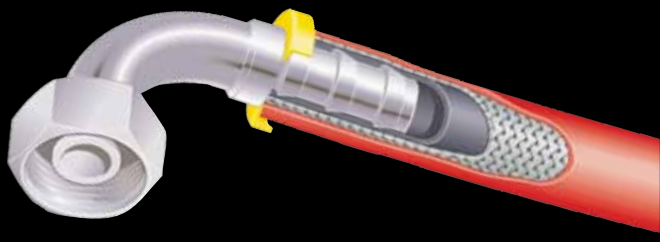
Synthetic rubber tube resistant to hydraulic fluids, dry air, water, watery emulsions etc.

Type 837PU-Plus is a low pressure Push-Lok hose with a braided reinforcement made of high-strength textile fibres.

The preferred applications of type 837PU-Plus include cooling circuits and compressed air in hose bundles and energy chains of robots, car production lines, machine tools, injection moulding and PET blow moulding machines. In all these applications the hoses are exposed to constant friction.

Due to the five different colours available for its cover, the 837PU-Plus is especially suitable for multiline assemblies conveying different media or for colour-coded supply and return lines.

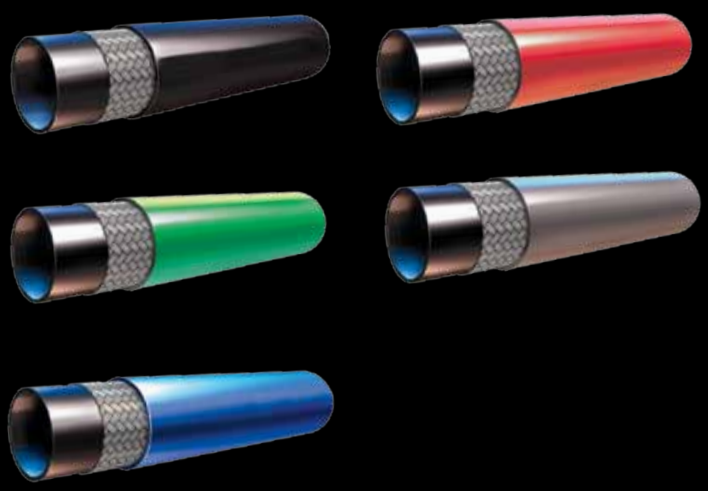




Easy to assemble without any tools or clamps

5 different colours

- easy identification
- simple production processes – one colour for one particular medium
- easy control of maintenance intervals
- simple stock planning in different departments



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837PU-*Plus*

Push-Lok hose
for a wide range of applications
including the automotive industry

1,6 MPa



- High flexibility of the hose
- High abrasion resistance
- Labs-free
- Low nipple insertion forces
- Different colours for multiline assemblies conveying different media

Main applications

For the demanding requirements of energy chain systems in all markets.
Hose bundle systems in robots and the automotive industry.

Restrictions

Not suitable for air-brake systems and applications with highly dynamic pressure pulses.
Not recommended for fuels.
Not recommended for hydraulic and lubricating oils.

Hose construction

Inner tube: Synthetic rubber
Reinforcement: One layer of high-strength textile yarn
Cover: Premium quality polyurethane in different colours

Temperature range ..... -40 °C to +100 °C

Exceptions: Air ..... up to +70 °C
Water ..... up to +85 °C

Recommended media

Air, dry air, water, water-oil emulsions and water-glycol. (Hydraulic fluids on a mineral-oil basis and lubricating oils with chemical and thermal (70 °C) restrictions.
For further information please refer to “Chemical Resistance” in Catalogue C4400, pages ***Ab-24*** to ***Ab-32***.

Fitting Series



Part Number	Hose I.D.				Hose O.D.	Pressure Rating: max. working pressure		Pressure Rating: min. burst pressure		Vaccum*	min. bend radius	weight
	DN	Inch	Size	mm	mm	MPa	psi	MPa	psi	kPa	mm	kg
837PU-4-xxx-RL	6	1/4	-4	6.4	12.7	1.6	235	6.4	940	95	30	0,11
837PU-6-xxx-RL	10	3/8	-6	9.5	15.9	1.6	235	6.4	940	95	50	0,15
837PU-8-xxx-RL	12	1/2	-8	12.7	19.8	1.6	235	6.4	940	95	70	0,26
837PU-10-xxx-RL	16	5/8	-10	15.9	23.0	1.6	235	6.4	940	51	90	0,27
837PU-12-xxx-RL	19	3/4	-12	19.1	26.2	1.6	235	6.4	940	51	110	0,33
837PU-16-xxx-RL	25	1	-16	25.4	32.5	1.6	235	6.4	940	51	180	0,52

* The vacuum value specified in the table is stated in kPa.
To obtain the absolute pressure value in kPa, subtract the value specified from 101 kPa.
Order information: To indicate the colours you wish to order, please add the following code to the order number:
e.g. 837PU-4-XXX-RL

XXX = BLK for black
BLU for blue
RED for red
GRN for green
GRA for grey



Example: The order number for 837PU-4-RL in green is 837PU-4-GRN-RL
RL = only available as bulk hose on drums

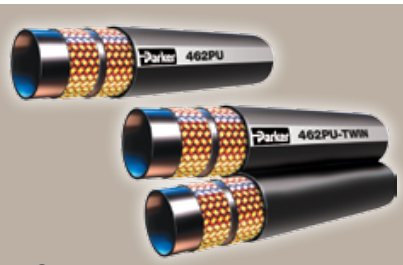
Hose layline (example)

PARKER PUSH-LOK 837PU-*Plus*-8 WP 1,6 MPa (235 PSI) I ° ° 12,5 mm (1/2)

up to 42.5 MPa

462PU-*No-Skive*

Compact hose with
2 steel wire braids
as single or twin hose



- No-Skive hose construction
- High abrasion and shock resistance
- High flexibility even at cold conditions
- High ozone-, UV-, weathering and seawater resistance
- Extended fluid compatibility
- Exceeding EN/ISO specifications

Main applications

For truck cranes and lifting equipment such as forklift trucks, aerial lifts, cranes, telehandlers, lifting platforms. Ideal for over-the-sheave or reel applications. The best solution for all the demanding medium pressure hydraulic applications in all markets, especially mobile and construction equipment.

Applicable Specifications

Exceeds EN 857 2SC - ISO 11237 type 2SC

Hose construction

Inner tube: Nitrile (NBR)
Reinforcement: Two high-tensile steel wire braids
Cover: Premium-quality polyurethane

Temperature range ..... -50 °C to +100 °C

Exceptions: Air ..... up to +70 °C
Water ..... up to +85 °C

Recommended media

Hydraulic fluids on a mineral-oil basis, water-glycol and lubricating oils, air and water. For air and gas applications with a pressure exceeding 1.7 MPa, the cover must be pin-pricked. For further information, please refer to “Chemical Resistance” in Catalogue C4400, pages ***Ab-24*** to ***Ab-32***.

Fitting Series



Part Number	Hose I.D.				Hose O.D.	Pressure Rating: max. working pressure		Pressure Rating: min. burst pressure		min. bend radius	weight
	DN	Inch	Size	mm	mm	MPa	psi	MPa	psi	mm	kg
Single hose											
462PU-4	6	1/4	4	6.4	13.4	42.5	6160	170.0	24640	75	0.30
462PU-5	8	5/16	5	7.9	15.0	40.0	5800	160.0	23200	85	0.35
462PU-6	10	3/8	6	9.5	17.2	35.0	5075	140.0	20300	90	0.42
462PU-8	12	1/2	8	12.7	20.4	31.0	4495	124.0	17980	130	0.52
462PU-10	16	5/8	10	15.9	23.9	28.0	4060	112.0	16240	160	0.66
Twin hose											
462PU-4-4	6	1/4	4	6.4	28.2	42.5	6160	170.0	24640	75	0.60
462PU-5-5	8	5/16	5	7.9	32.5	40.0	5800	160.0	23200	85	0.70
462PU-6-6	10	3/8	6	9.5	35.0	35.0	5075	140.0	20300	90	0.85
462PU-8-8	12	1/2	8	12.7	41.5	31.0	4495	124.0	17980	130	1.00
462PU-10-10	16	5/8	10	15.9	48.7	28.0	4060	112.0	16240	160	1.35

The combination of high temperature and high pressure can reduce the service life of the hose.

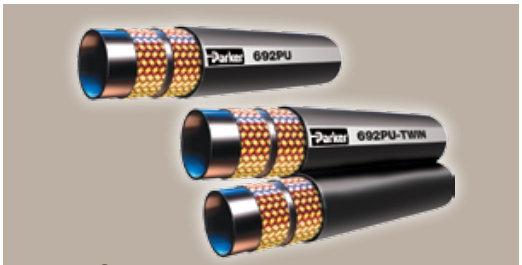
Hose layline (examples for single and twin hose)

PARKER ELITE 462PU-8 WP 31,0 MPa (4495 psi) | • • 12,5 mm (1/2 “)

692PU-*No-Skive*

Compact hose with
1 or 2 steel wire braids
as single or twin hose

21.0 MPa



- No-Skive hose construction
- Constant working pressure
- High abrasion and shock resistance
- High flexibility even at cold conditions
- High ozone-, UV- and weathering resistance
- Extended fluid compatibility
- Tight bend radius

Main applications

Material handling industry, where tight bend radii, flexibility, ozone, abrasion and shock resistance are needed and required. Ideal for over-the-sheave or reel applications.

Applicable Specifications

Parker specification – constant working pressure

Hose construction

Inner tube: Nitrile (NBR)
Reinforcement: One or two braids of high-tensile steel wire
Cover: Premium-quality polyurethane

Temperature range ..... -45 °C to +100 °C

Exceptions: Air ..... up to +70 °C
Water ..... up to +85 °C

Recommended media

Hydraulic fluids on a mineral-oil basis, water-glycol and lubricating oils, air and water. For air and gas applications with a pressure exceeding 1.7 MPa, the cover must be pin-pricked. For further information, please refer to “Chemical Resistance” in Catalogue C4400, pages ***Ab-24*** to ***Ab-32***.

Fitting Series

Size -4 up to -6

Size -8 up to -10



Part Number	Hose I.D.				Hose O.D.	Pressure Rating				min. bend radius	weight
						max. working pressure		min. burst pressure			
	DN	Inch	Size	mm	mm	MPa	psi	MPa	psi	mm	kg
Single hose											
692PU-4	6	1/4	4	6.4	11.5	21.0	3045	84.0	12180	40	0.18
692PU-5	8	5/16	5	7.9	13.6	21.0	3045	84.0	12180	40	0.21
692PU-6	10	3/8	6	9.5	15.5	21.0	3045	84.0	12180	40	0.25
692PU-8	12	1/2	8	12.7	20.4	21.0	3045	84.0	12180	50	0.52
692PU-10	16	5/8	10	15.9	23.9	21.0	3045	84.0	12180	60	0.66
Twin hose											
692PU-4-4	6	1/4	4	6.4	24.0	21.0	3045	84.0	12180	40	0.36
692PU-5-5	8	5/16	5	7.9	27.4	21.0	3045	84.0	12180	40	0.42
692PU-6-6	10	3/8	6	9.5	31.2	21.0	3045	84.0	12180	40	0.50
692PU-8-8	12	1/2	8	12.7	41.5	21.0	3045	84.0	12180	50	1.00
692PU-10-10	16	5/8	10	15.9	48.7	21.0	3045	84.0	12180	60	1.35

The combination of high temperature and high pressure can reduce the service life of the hose.

Hose layline (examples for single and twin hose)

PARKER 692PU-6 WP 21,0 MPa (3046 psi) | • • 10 mm (3/8 “)

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