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40,000 PSI



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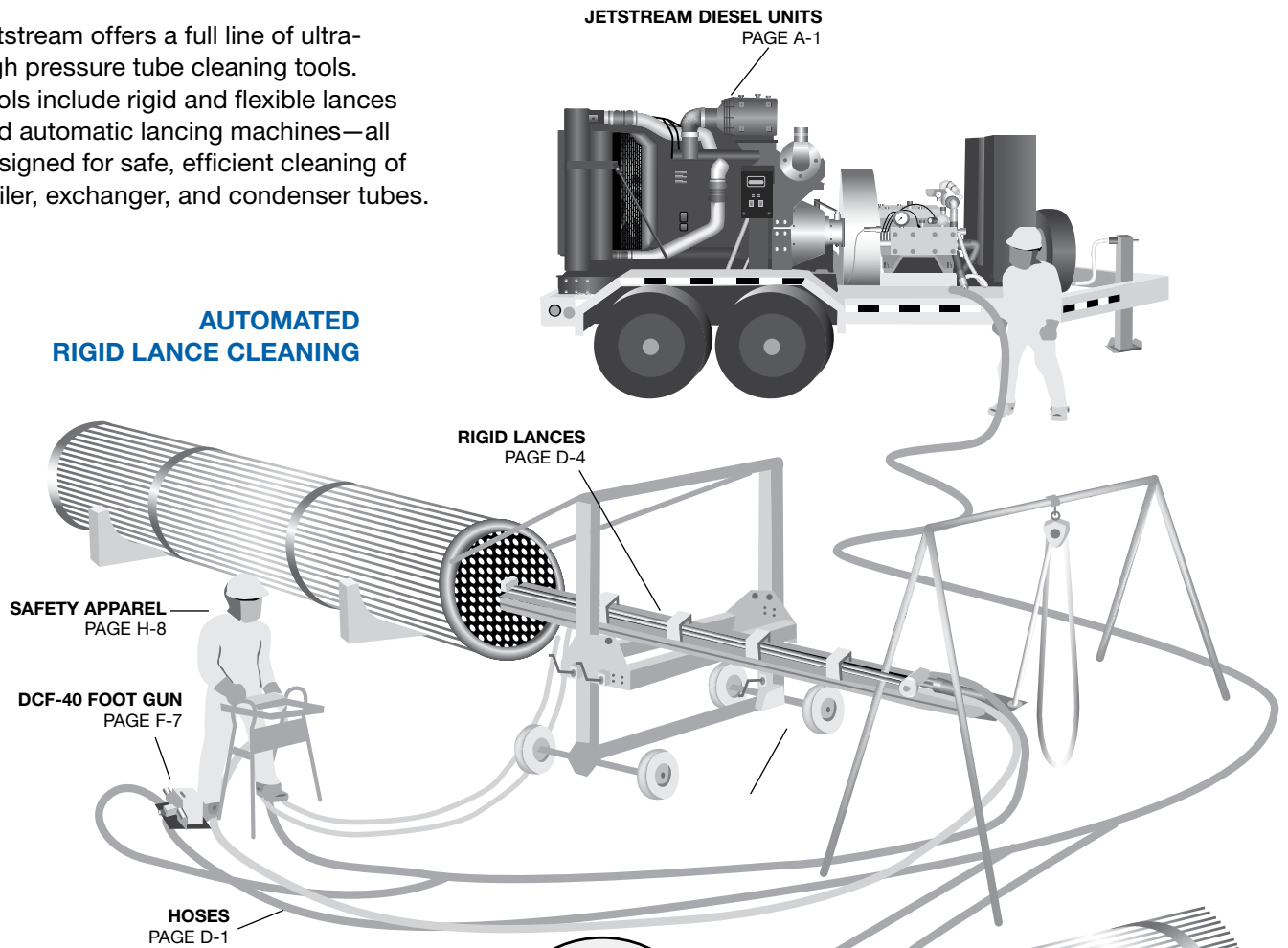
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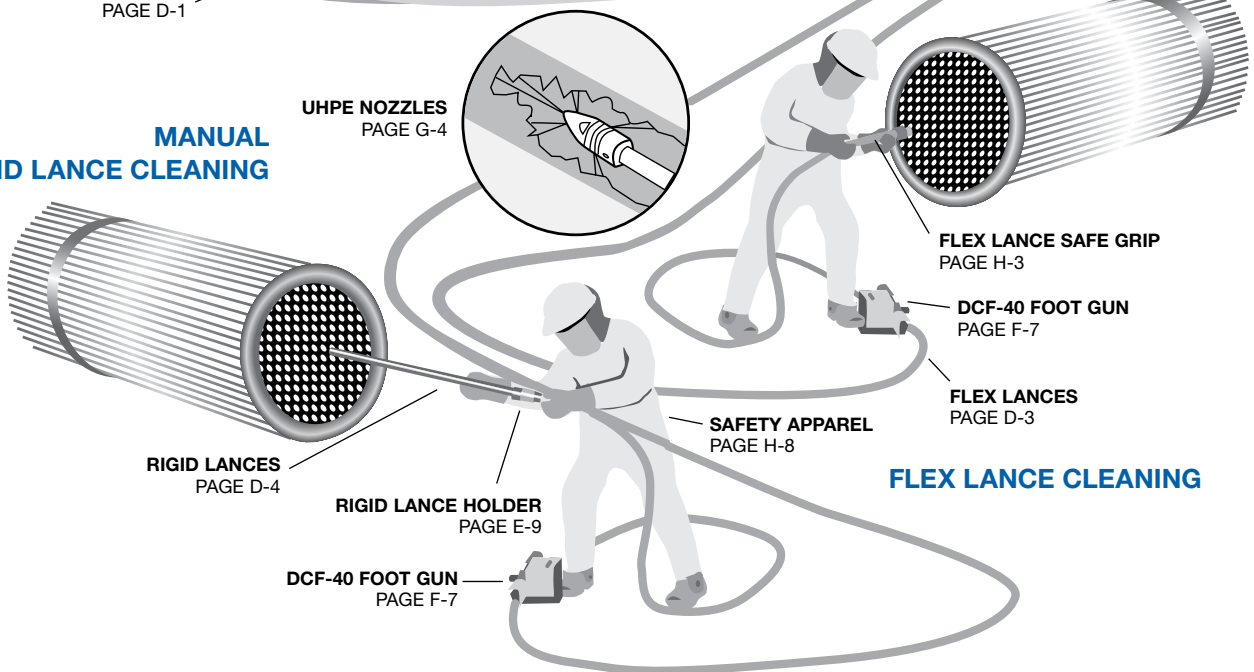
TUBE CLEANING SYSTEM

Jetstream offers a full line of ultra-high pressure tube cleaning tools. Tools include rigid and flexible lances and automatic lancing machines—all designed for safe, efficient cleaning of boiler, exchanger, and condenser tubes.

AUTOMATED RIGID LANCE CLEANING



MANUAL RIGID LANCE CLEANING



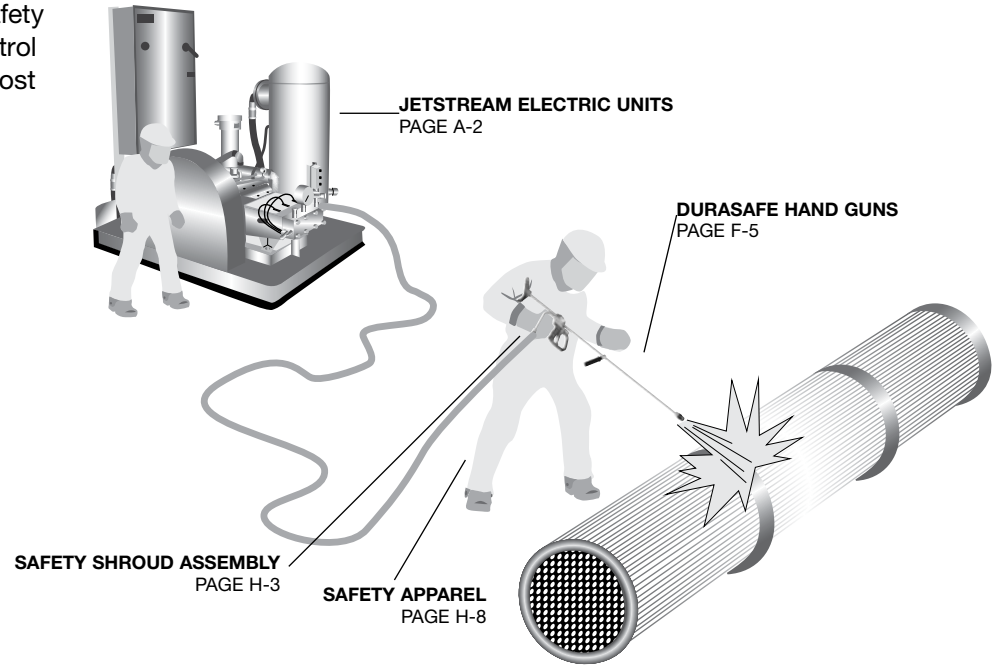
FLEX LANCE CLEANING



SURFACE CLEANING SYSTEMS

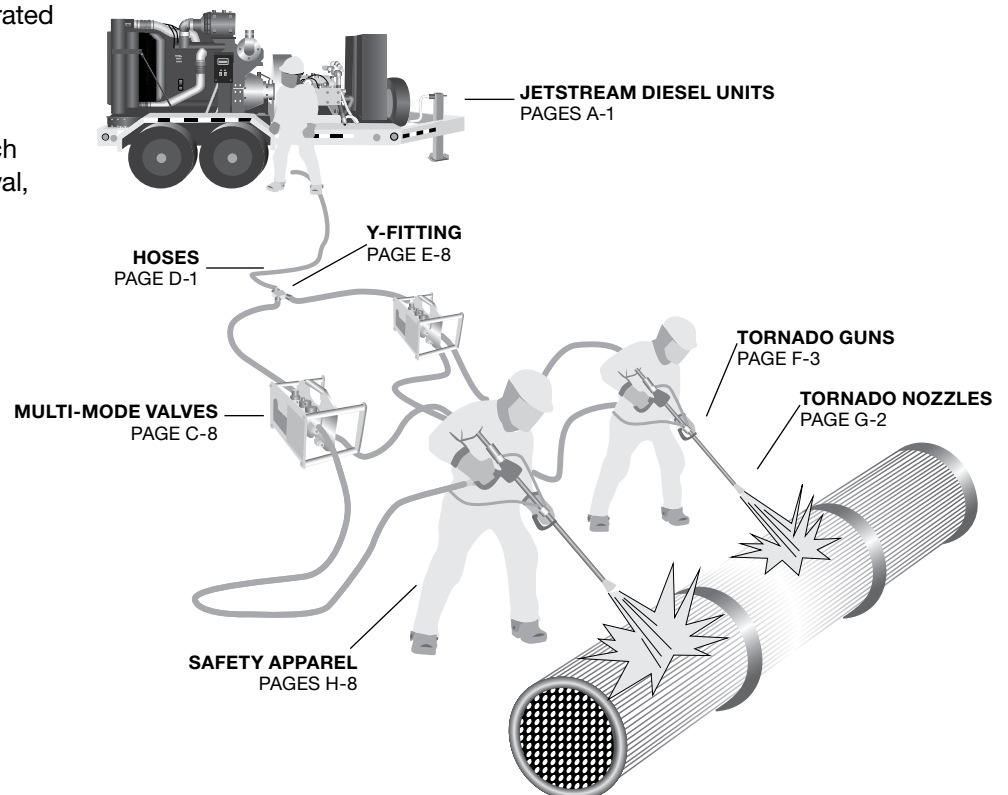
Single Gun Applications

The proven productivity and safety of Jetstream's DuraSafe™ Control Guns provide highly efficient, cost effective surface cleaning in a variety of applications.



Multi-gun Applications

Jetstream's 40,000 psi air-operated Tornado Gun cleaning system allows the simultaneous use of multiple guns for maximum productivity in applications such as surface prep, coating removal, paint booth cleaning, stripe removal, tank cleaning, etc.





X-SERIES

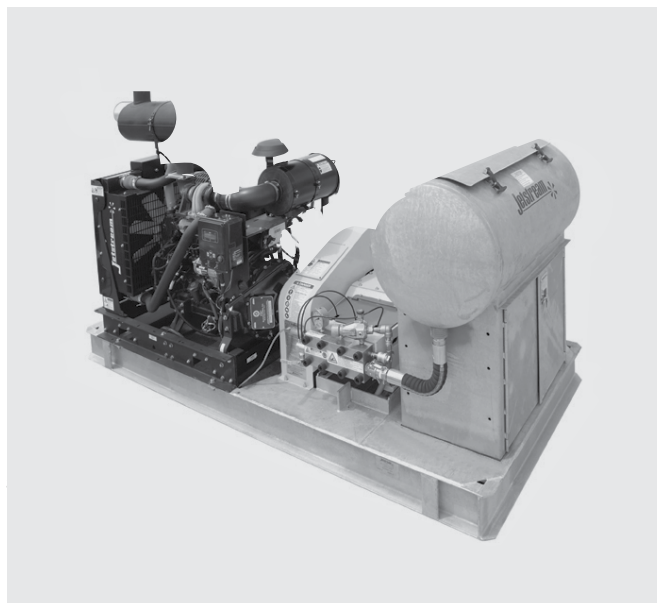
UNITS

Jetstream waterblasters are available in a wide selection of standard models with nearly limitless options for customization to suit specific needs. All Jetstream waterblasters employ UNx Fluid End technology for superior performance, greater flexibility in the field, and reduced downtime and maintenance (see page B-10 for details).

X-SERIES

From the innovative UNx pump down to the EZ-Lube wheel bearings, every detail of the X-Series was engineered to minimize maintenance and provide contractors with the most productive and versatile waterblaster on the market today.

- 170 to 325 hp (127 to 242 kW) high performance diesel engines
- Greaseless spread bearing PTO on 4240 models
- Guardian Waterblast Filtration System extends component life and increases uptime
- Available as a skid or low profile trailer with balanced weight distribution for controlled towing



3040 SERIES

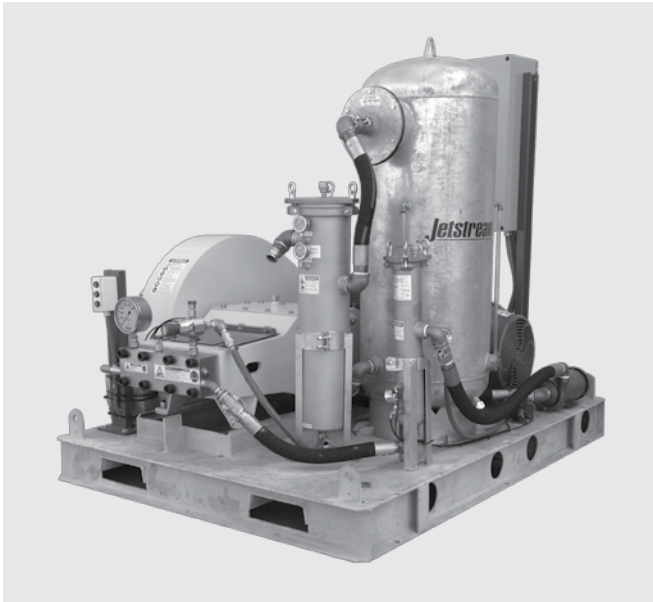
3040 SERIES

Employing our smallest pump, 3040 Series waterblasters are ideal for small or single operator jobs.

- 125 hp (93 kW)
- Galvanized water tank
- Available as skid or tandem trailer
- Spec chart—from B-7, use 150 hp

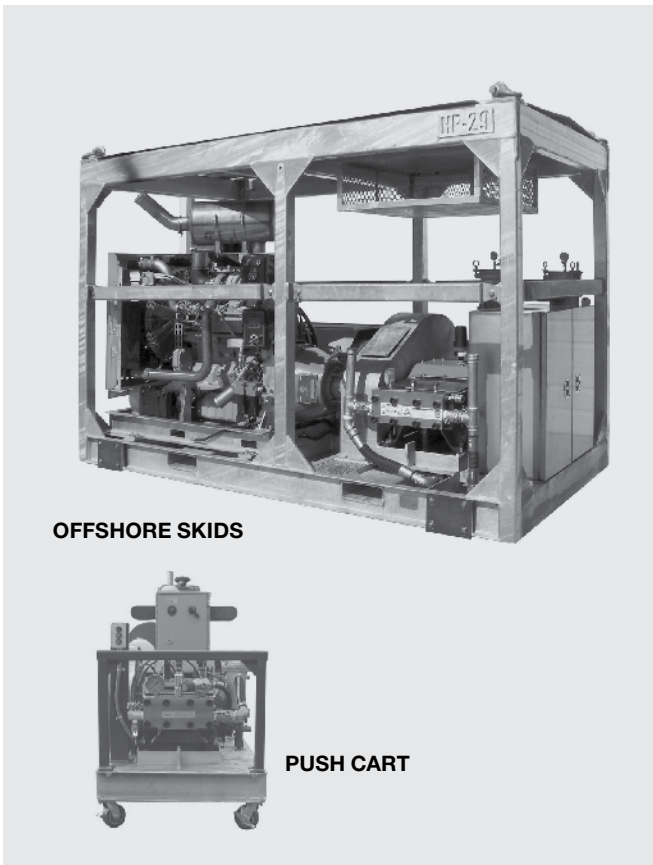
UNITS

40,000 PSI

**ELECTRIC UNITS****ELECTRIC UNITS**

Jetstream manufactures several models of electric waterblasters for in-plant installations configured to user requirements.

- 60 to 325 hp (45 to 242 kW)
- TEFC or explosion proof motors
- Soft-start or VFD starters
- Available as stationary or steerable in-plant skid

**OFFSHORE SKIDS****PUSH CART****CUSTOM UNITS**

In addition to a wide selection of standard units and options, close collaboration between Jetstream solutions providers and engineers provide almost unlimited custom options to meet specific needs. Common requests include:

- Custom trailers and skids
 - Special control devices (pneumatic, electronic, hydraulic)
 - Customizable to meet special plant requirements
- Jetstream can build the perfect unit for any job

TRAINING



In order to ensure customer satisfaction, Jetstream has developed the Right Start program, a four-step plan designed to provide the owners and operators of new Jetstream waterblast units with the knowledge and support needed to feel familiar, confident and satisfied with Jetstream equipment and personnel.



1. Transportation

Once a new waterblaster is built and thoroughly tested, the Shipping Manager contacts the new owner to arrange for the unit's arrival to the right place at the right time.



2. Training

All new waterblasters include personal training by the Right Start Technician. Training involves both classroom and "hands-on" instruction to make sure that each operator is thoroughly familiar with the design and function of the unit and accessories, enabling him to safely put the new equipment to optimal use.



3. Follow-up

Within thirty days of delivery, and again within sixty days, the Solutions Provider will call to answer any questions and ensure complete satisfaction.



4. Trust

If any questions or problems ever arise, the Jetstream team is available and committed to providing prompt answers and solutions.

CLASSES OFFERED

PUMP OPERATION & MAINTENANCE

The course combines extensive hands-on training with classroom instruction and is recommended for maintenance personnel, operator and supervisors.

Class Length: 3 days

Class Size: 10 maximum

Location: Jetstream Manufacturing Training Center
 Houston, TX

Call for class schedules and availability. Classes can be tailored to those in attendance.

This course covers:

- Safe waterblast operation
- Unit maintenance and troubleshooting
- Physical application and related safety issues
- Safe pump operation
- Pump maintenance
- The UNx System (10k, 20k and 40k)
- Swapping fluid ends
- Waterblast guns
- Pedals and accessories
- Uni-valves
- Proper packing, disassembly, repair and re-lapping
- Hoses, lances, nozzles
- Recommended spare parts
- Preventative maintenance and winterization

SAFETY-FS SOLUTIONS

As the experts on water blast and industrial vacuum equipment. FS Solutions makes OSHA training and compliance more convenient than ever through hands on courses developed by Gary Toothe, whose significant contributions and 25 years of experience are well-known in the water blast and industrial vacuum industries.

ONLINE WITH FEDERAL SIGNAL ESG UNIVERSITY

- Work at your pace and convenience
- Remain compliant with OSHA training
- Safety increase productivity
- Decrease risk of future liability

Additional Tools

- Jetstream Safety Manual **Part No. 62113**
- Safety Video **Part No. 28632**

UNITS

40,000 PSI



AUTOMATED WATERBLASTING SOLUTIONS

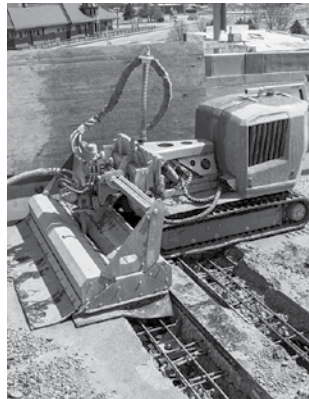
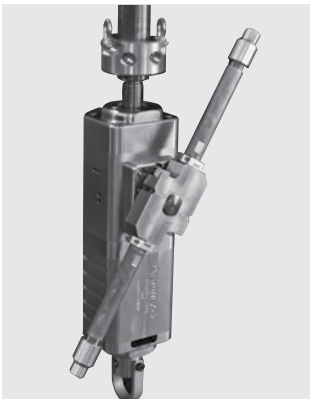
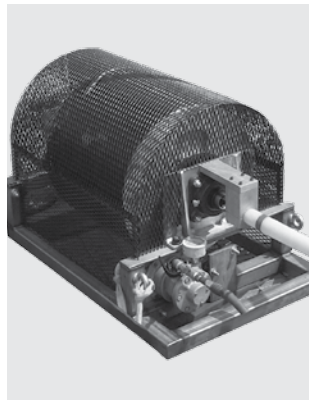
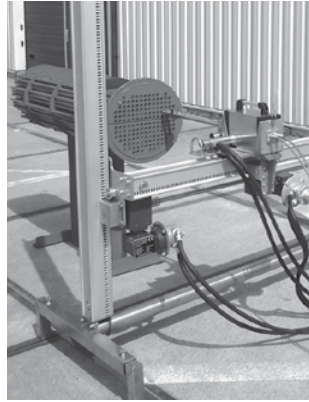
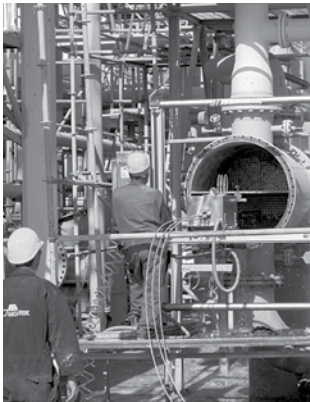
Automation is a rapidly growing waterblast solution for tube cleaning, tank and boiler cleaning, surface preparation and hydro-demolition. Hands-free operations is key to a safe work environment. Positioning the operator at a distance, away from the work area, is the number one benefit to utilizing automated tools. This placement away from direct contact with the high pressure application allows for quick reaction time and decreases the possibility for employee injury.

To enhance operator safety, productivity and efficiency, Jetstream has partnered with strategic manufacturers of specialty equipment in automated and robotic tools and accessories. These alliances allow Jetstream to provide a total solution to the customer, from the waterblasting unit to the tools needed to perform the job safely and efficiently.

Offering the broadest range of automation solutions for industrial cleaning contractors, Jetstream provides:

- The broadest offering of hands free cleaning solutions
- Innovative, automated and robotic tools and accessories
- On-site solutions provided by regional automation specialists
- Rent or purchase options on a variety of state-of-the-art tooling
- Convenience with availability through Jetstream and FS Solutions rental centers
- Robotic and mechanical hydro-demolition solutions
- Application and safety training

For a list of products offered, contact your Regional Sales Manager or Inside Sales Technician for more details.



UNx™ BARESHAFT PUMP

FEATURES AND BENEFITS

The Jetstream 40,000 psi UNx Bareshaft Pump provides unrivaled durability and strength. The pump is capable of power inputs up to 325 horsepower and, coupled with the best Jetstream UNx fluid end, provides flow* rates approaching twelve gallons per minute. Jetstream bareshaft pumps are the best choice for those building their own system or replacing a complicated, worn, or unreliable pump.

The following UNx Bareshaft Pumps available:

- 4200 Series (4240): 325HP @ 11.9 gpm
- 3600 Series (3640): 200HP @ 7.8 gpm
- 3000 Series (3040): 150HP @ 5.2 gpm

Seven different pump displacement levels are available within the three series. See pages B-2, B-4 and B-7 for further details.

Power End:

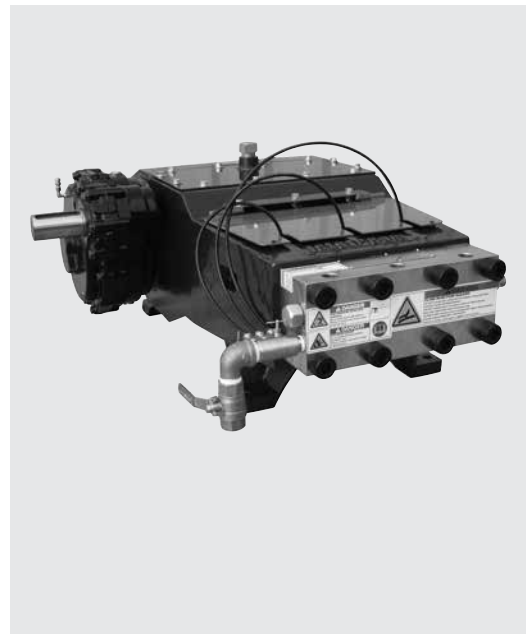
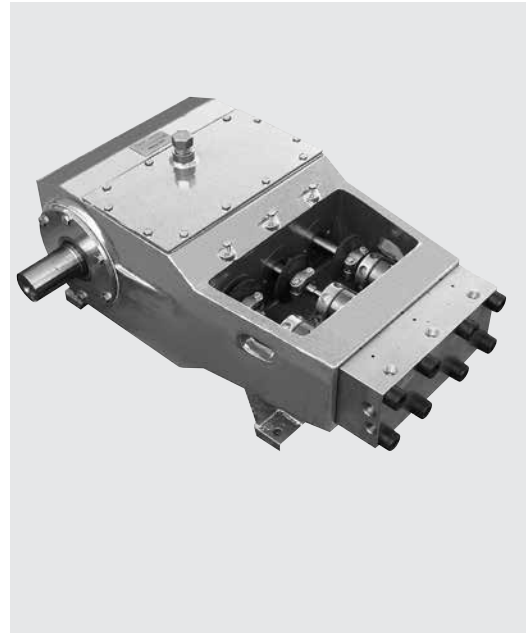
- Ductile iron power frame is the strongest in the industry
- Heat treated billet alloy steel crankshaft
- Largest bearings of any pump on the market

UNx Fluid End:

- Superior performance
- Greater flexibility in the field
- Reduced downtime and maintenance
- See UNx Features and Benefits on page B-10

NOTE: The placement of the crankshaft (right hand or left hand) and paint color are required when ordering a bareshaft pump. Standard paint color is yellow.

An optional gear drive is available on the 3040 Bareshaft Pump. Several configurations are available. See page B-7 for ratio information. Clocking position required when ordering.

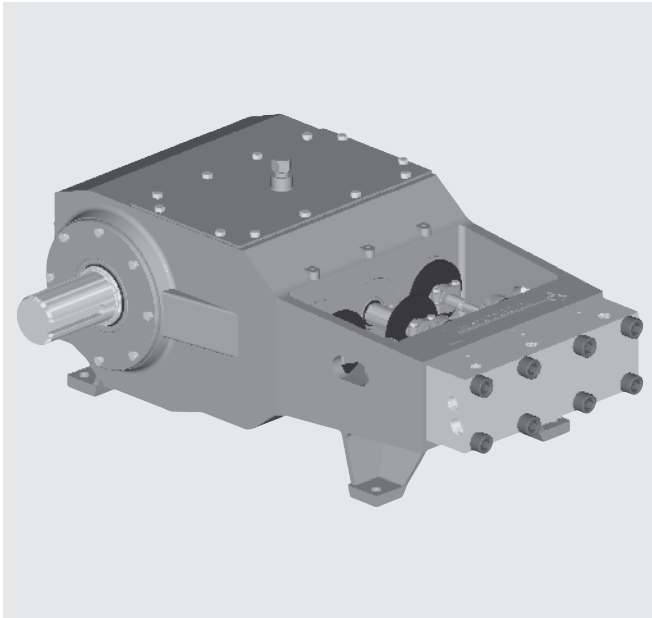


PUMP & FLUID ENDS

40,000 PSI



PUMP & FLUID ENDS



MODEL 4240 UNx™ BARESHAFT PUMP

The Jetstream model 4240 is capable of power input up to 325 horsepower and flows* approaching twelve gallons per minute at 40,000 psi. It is the most advanced and efficient high horsepower waterblast pump in the industry. Combining the strength and durability of a proven power end workhorse with the unparalleled simplicity, service ability, and versatility of the UNx fluid end design, Jetstream bareshaft pumps are the best choice for those building their own system or replacing a complicated, worn, or unreliable pump.

POWER END SPECIFICATIONS

MAX. POWER INPUT		PLUNGERS			PUMP RPM		MAX. PUMP DISPLACEMENT*		MAX. FRAME LOAD		MAX. OPERATING PRESSURE		TOTAL WEIGHT		PUMP OIL		
		QTY.	STROKE												TYPE	CAPACITY	
hp	kW		in	mm	min	max	gpm	lpm	lbs	N	psi	bar	lbs	kg		gal	l
325	242	3	4.25	108	150	514	11.9	45.0	17,500	77,900	40,000	2,750	1,800	820	80W-90	9.0	34

FLUID END SPECIFICATIONS

PART NO.	PLUNGER SIZE			PUMP DISPLACEMENT AT SPECIFIED PUMP SPEEDS*										MAX. OPERATING PRESSURE	
	NO.	DIAMETER		150 RPM		200 RPM		300 RPM		400 RPM		514 RPM		psi	bar
		in	mm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm		
54515	#6	0.600	15.24	2.3	8.9	3.1	11.8	4.7	17.7	6.2	23.6	7.8	29.5	40,000	2,750
54520	#7	0.670	17.02	2.9	11.1	3.9	14.7	5.8	22.1	7.8	29.5	9.7	36.8	40,000	2,750
54525	#8	0.730	18.54	3.5	13.1	4.6	17.5	6.9	26.2	9.2	35.0	11.9	45.0	40,000	2,750

* Displacement (flow) values represented refer to "theoretical" flow, neglecting inefficiency resulting from compressibility of water and expansion of pressure-bearing components.

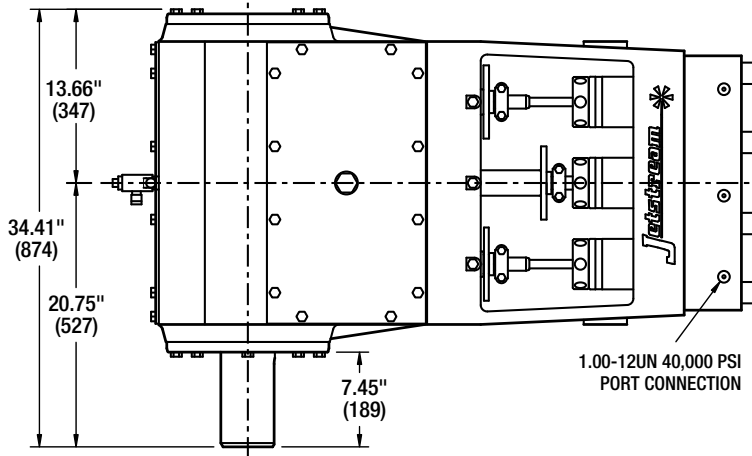
PUMP & FLUID ENDS

40,000 PSI

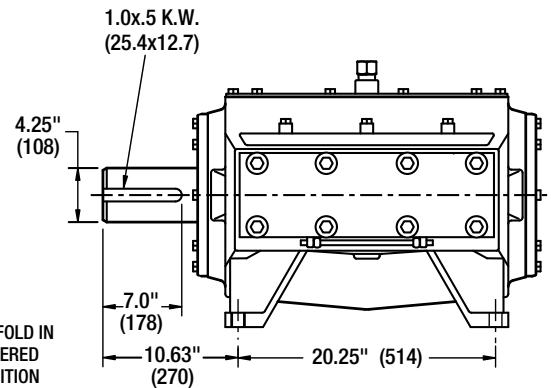
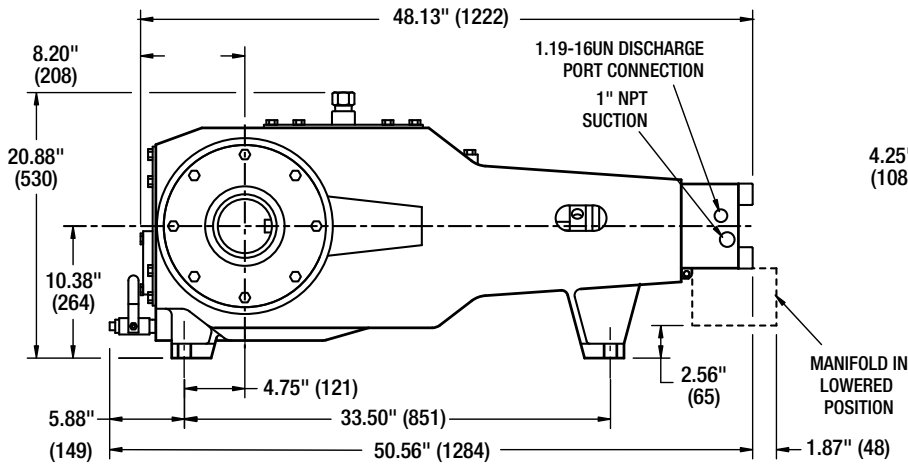


MODEL 4240 UNx™ BARESHAFT PUMP

PUMP & FLUID ENDS



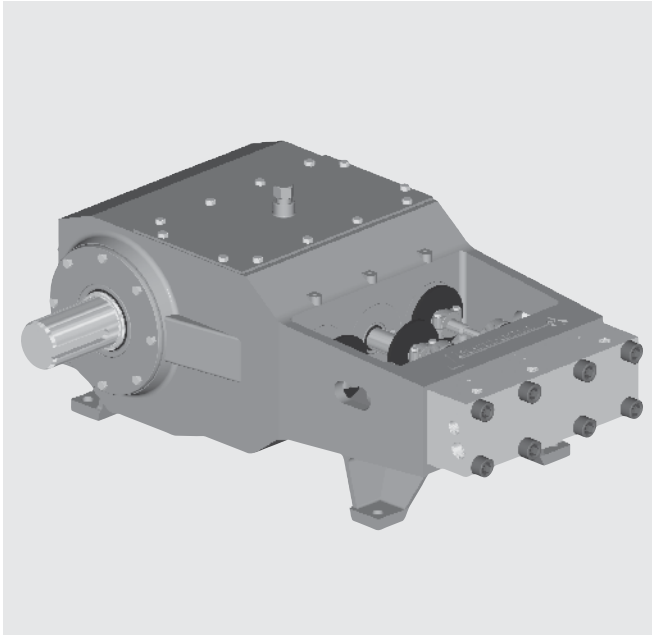
Primary dimensions are in inches.
Dimensions in parentheses are millimeters.



HORSEPOWER CHART

PUMP DISPLACEMENT AT SPECIFIED POWERS AND PRESSURES*									
COMMON ENGINE POWERS		PUMP OPERATING PRESSURE							
		psi		bar		psi		bar	
		30,000	2,068	36,000	2,482	40,000	2,750		
hp	kW	gpm	lpm	gpm	lpm	gpm	lpm		
200	149	10.3	39.1	8.6	32.6	7.8	29.3		
215	160	11.1	42.0	9.3	35.0	8.3	31.5		
250	186	12.9	48.9	10.8	40.7	9.7	36.7		
260	194	13.4	50.8	11.2	42.4	10.1	38.1		
325	242	15.5	58.7	12.9	48.9	11.9	45.0		

* Displacement (flow) values represented refer to "theoretical" flow, neglecting inefficiency resulting from compressibility of water and expansion of pressure-bearing components.



MODEL 3640 UNx™ BARESHAFT PUMP

The Jetstream model 3640 is capable of power input up to 200 horsepower and flows* exceeding seven gallons per minute at 40,000 psi. It is the most advanced and efficient medium horsepower waterblast pump in the industry. Combining the strength and durability of a proven power end workhorse with the unparalleled simplicity, service ability, and versatility of the UNx fluid end design, Jetstream bareshaft pumps are the best choice for those building their own system or replacing a complicated, worn, or unreliable pump.

POWER END SPECIFICATIONS

MAX. POWER INPUT		PLUNGERS			PUMP RPM		MAX. PUMP DISPLACEMENT*		MAX. FRAME LOAD		MAX. OPERATING PRESSURE		TOTAL WEIGHT		PUMP OIL		
		QTY.	STROKE												TYPE	CAPACITY	
hp	kW		in	mm	min	max	gpm	lpm	lbs	N	psi	bar	lbs	kg		gal	l
200	149	3	3.63	92	150	514	10.8	40.9	11,300	50,300	40,000	2,750	1,720	780	80W-90	9.0	340

FLUID END SPECIFICATIONS

PART NO.	PLUNGER SIZE		PUMP DISPLACEMENT AT SPECIFIED PUMP SPEEDS*										MAX. OPERATING PRESSURE		
	NO.	DIAMETER		150 RPM		200 RPM		300 RPM		400 RPM		514 RPM		psi	bar
		in	mm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm		
54500	#6	0.600	15.24	2.7	10.1	4.0	15.1	5.3	20.2	6.7	25.2	7.8	27.7	40,000	2,750
54505	#7	0.670	17.02	3.3	12.6	5.0	18.9	6.6	25.1	8.3	31.4	9.1	34.6	32,000	2,206
54510	#8	0.730	18.54	3.9	14.9	5.9	22.4	7.9	29.8	9.9	37.7	10.8	41.0	27,000	1,861

*Displacement (flow) values represented refer to "theoretical" flow, neglecting inefficiency resulting from compressibility of water and expansion of pressure-bearing components.

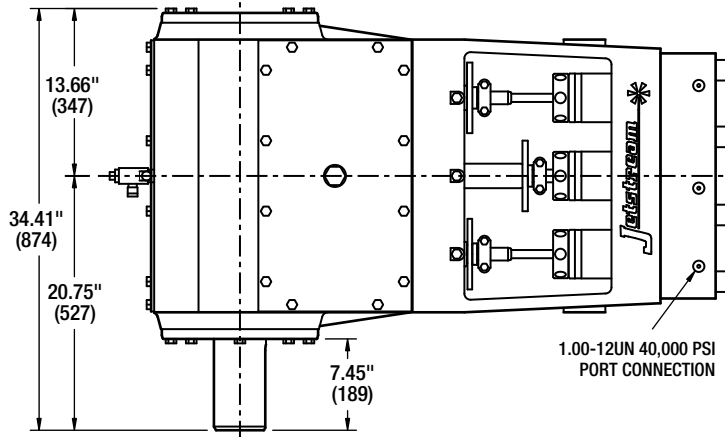
PUMP & FLUID ENDS

40,000 PSI

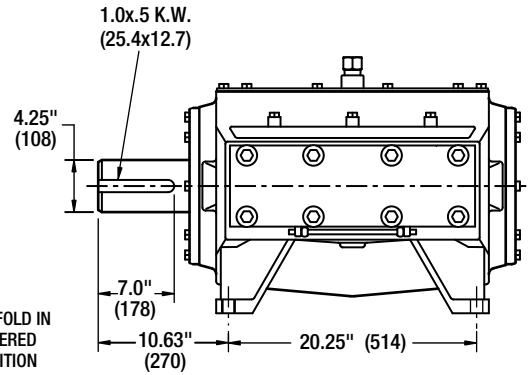
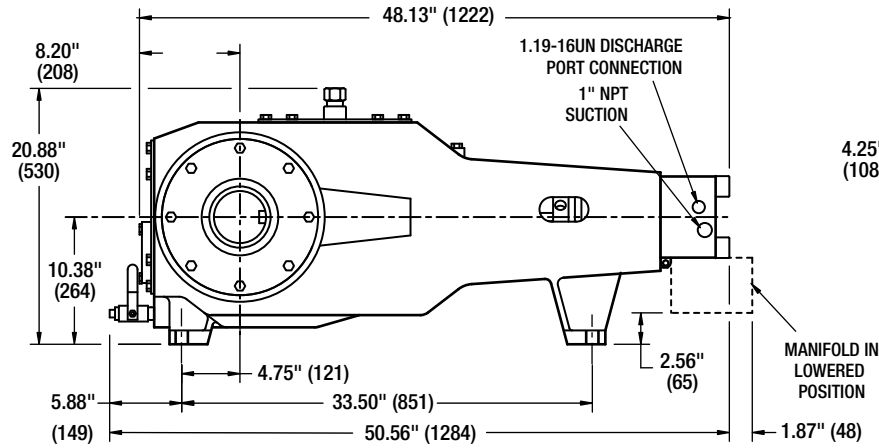


MODEL 3640 UNx™ BARESHAFT PUMP

PUMP & FLUID ENDS



Primary dimensions are in inches.
Dimensions in parentheses are millimeters.



HORSEPOWER CHART

PUMP DISPLACEMENT AT SPECIFIED POWERS AND PRESSURES*							
COMMON ENGINE POWERS		PUMP OPERATING PRESSURE					
		psi	bar	psi	bar	psi	bar
		30,000	2,068	36,000	2,482	40,000	2,750
hp	kW	gpm	lpm	gpm	lpm	gpm	lpm
150	112	7.8	29.3	6.5	24.4	5.8	22.0
177	132	9.1	34.6	7.6	28.8	6.9	26.0
200	149	10.3	39.1	8.6	32.6	7.8	29.3

* Displacement (flow) values represented refer to "theoretical" flow, neglecting inefficiency resulting from compressibility of water and expansion of pressure-bearing components.

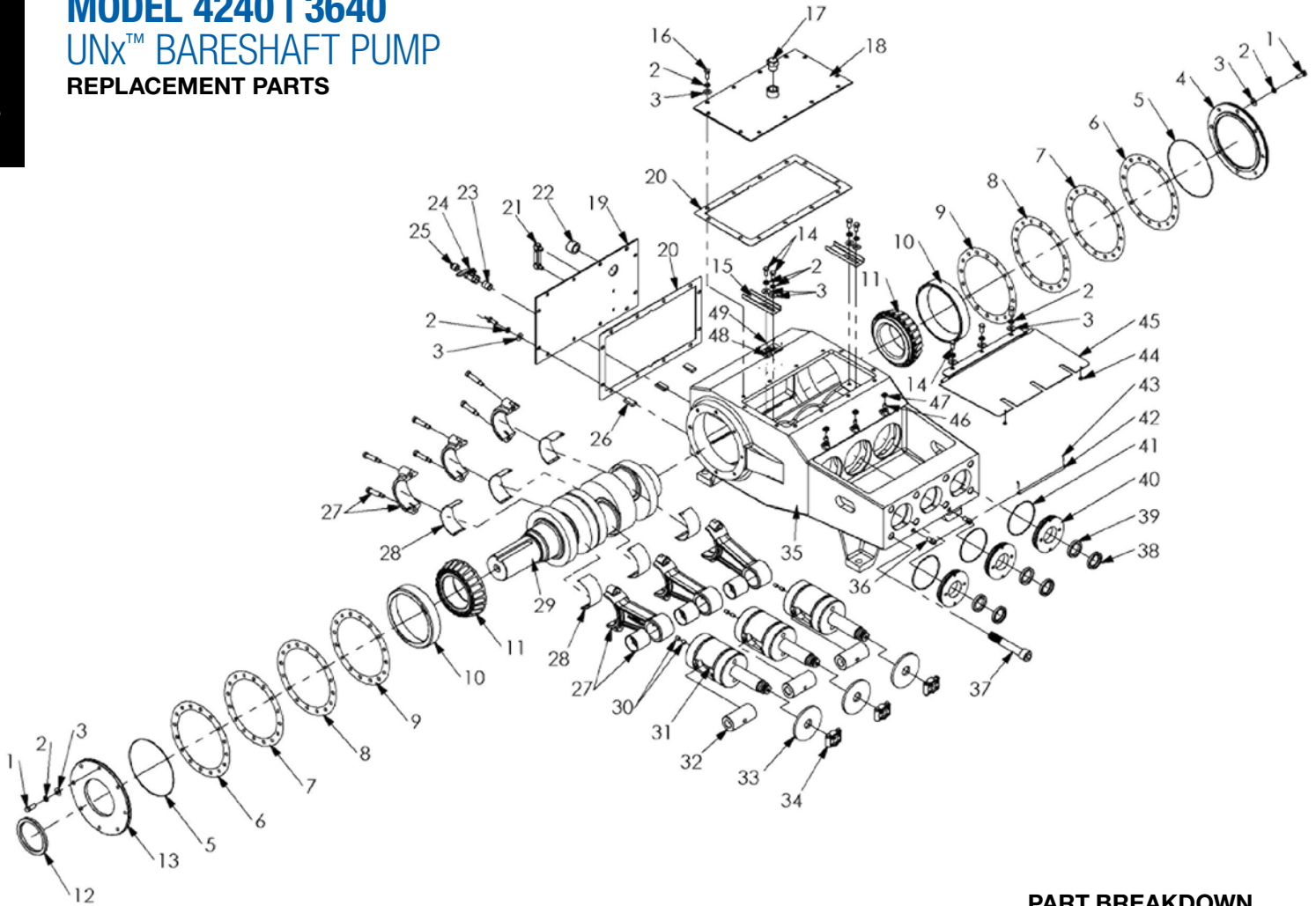
PUMP & FLUID ENDS

40,000 PSI



MODEL 4240 | 3640 UNx™ BARESHAFT PUMP REPLACEMENT PARTS

PUMP & FLUID ENDS



PART BREAKDOWN

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	26435	Capscrew	18	51279	Top Cover Plate	34	51736	Plunger Coupling
2	26558	Washer	19	55253	Back Cover Plate	35	51421	Power Frame
3	26798	Washer	20	26195	Gasket, Cover Plate	36	51659	Trunnion
4	51536	Frame Cap, Outboard	21	71318	Oil Level Gage	37	26500	Capscrew
5	71017	O-Ring	22	29738	Plug	38	04101	Oil Seal, Outboard
6	26495	Shim, 0.020" Thick	23	25946	Nipple	39	26481	Oil Seal, Inboard
7	26495-1	Shim, 0.010" Thick	24	27101	Ball Valve	40	51713	Oil Seal Plate
8	26495-2	Shim, 0.0075" Thick	25	25928	Plug	41	26479	O-Ring
9	26495-3	Shim, 0.005" Thick	26	26705	Magnet	42	50295	Trunnion Rod
10	26376	Bearing, Cup, Race	27	51487	Connecting Rod	43	26468	Cotter Pin
11	26390	Bearing, Cone	28	26051	Journal Bearing	44	27592	Grommet
12	26208	Oil Seal	29	53600	3600 Crankshaft	45	53632	Rod Box Cover
13	51538	Frame Cap, Inboard	29	28826	4200 Crankshaft	46	26482	Setscrew
14	26361	Capscrew	30	26369	Setscrew	47	27608	Washer
15	26484	Oil Trough	31	51731	Crosshead	48	26590	Caution Plate
16	26491	Capscrew	32	51534	Crosshead Pin	49	26379	Screw, Caution Plate
17	26360	Breather	33	26487	Deflector			

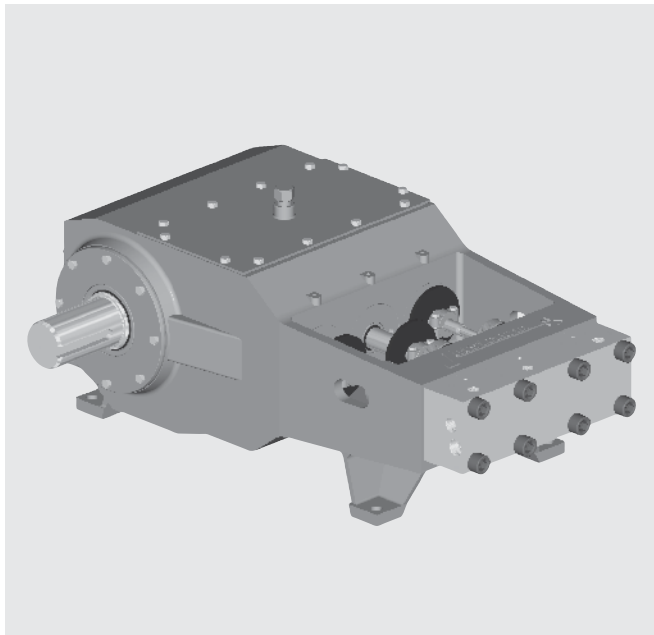
*For reverse rotation pump, use 29014.

PUMP & FLUID ENDS

40,000 PSI



PUMP & FLUID ENDS



MODEL 3040 UNx™ BARESHAFT PUMP

The Jetstream model 3040 is capable of power input up to 150 HP and flows* exceeding seven gallons per minute at 40,000 psi. It is the most advanced and efficient medium horsepower waterblast pump in the industry. Combining the strength and durability of a proven power end workhorse with the unparalleled simplicity, serviceability, and versatility of the UNx fluid end design, Jetstream bareshaft pumps are the best choice for those building their own system or replacing a complicated, worn, or unreliable pump.

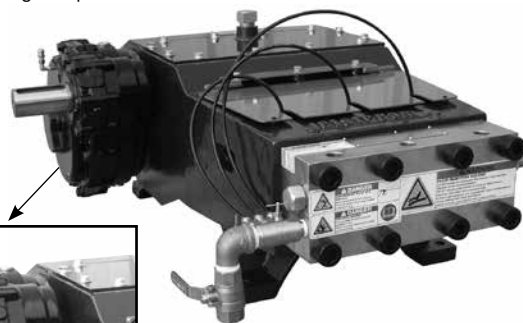
POWER END SPECIFICATIONS

MAX. POWER INPUT		PLUNGERS			PUMP RPM		MAX. PUMP DISPLACEMENT*		MAX. FRAME LOAD		MAX. OPERATING PRESSURE		TOTAL WEIGHT		PUMP OIL		
		QTY	STROKE												TYPE	CAPACITY	
hp	kW		in	mm	min	max	gpm	lpm	lbs	N	psi	bar	lbs	kg		gal	l
150	112	3	3.00	76	150	600	5.2	19.5	11,300	50,300	40,000	2,750	970	440	80W-90	5.0	19.0

FLUID END SPECIFICATIONS

PART NO.	PLUNGER SIZE		MAX. POWER INPUT		FLOW AT SPECIFIED PUMP SPEEDS*								MAX. FLOW / PRESSURE				
	NO.	DIAMETER			300 RPM		400 RPM		500 RPM		600 RPM		FLOW*		PRESSURE		
		in	mm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	psi	bar		
56620	#5	.530	13.46	134	100	2.6	9.8	3.4	13.0	4.3	16.3	5.2	19.5	5.2	19.5	40,000	2750

*Displacement (flow) values represented refer to "theoretical" flow, neglecting inefficiency resulting from compressibility of water and expansion of pressure-bearing components.



Optional Gear Drive

An optional Gear Drive can be added to the 3040 Bareshaft Pump. Several options are available, as well as the specific clocking position needed. Contact your Regional Sales Manager for more information.



GEAR DRIVE

PART NO.	DRIVE RATIO	MAX INPUT SPEED
58501-17-68	4.00:1	2400 RPM
58501-18-66	3.67:1	2200 RPM
58501-21-63	3.00:1	1800 RPM
58501-24-60	2.50:1	1500 RPM

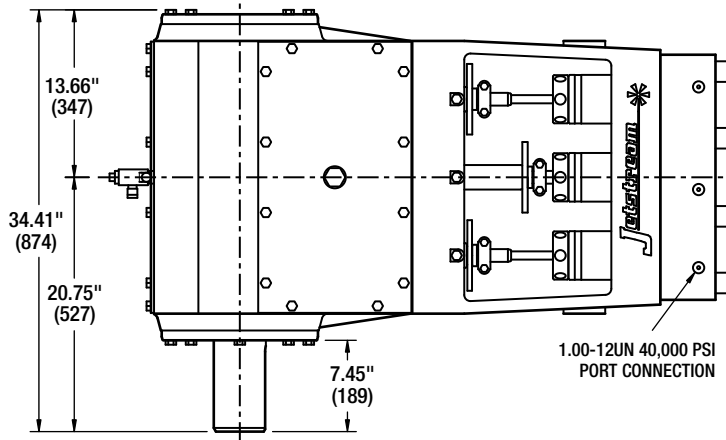
PUMP & FLUID ENDS

40,000 PSI

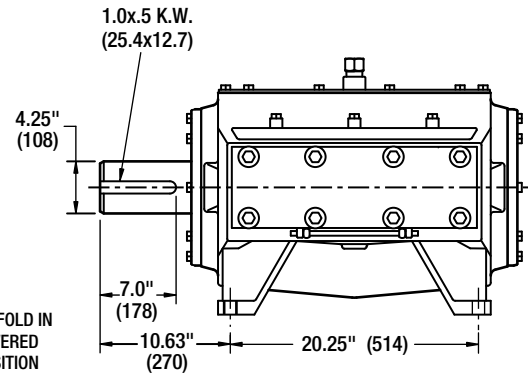
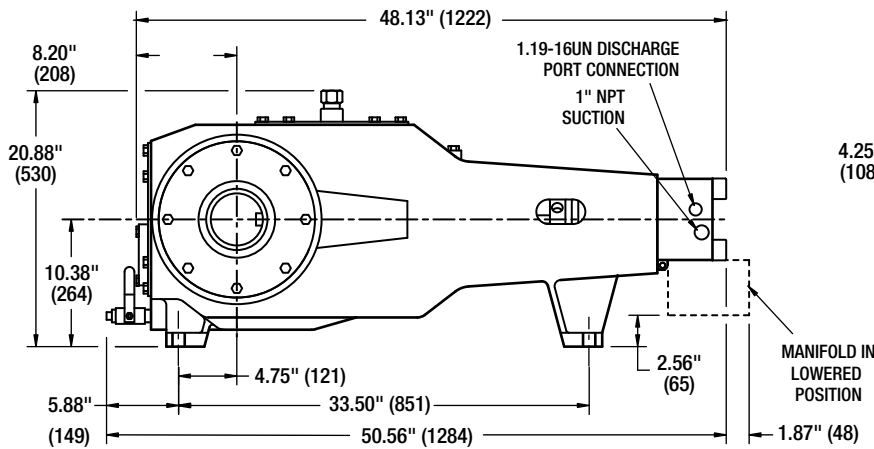


MODEL 3040 UNx™ BARESHAFT PUMP

PUMP & FLUID ENDS



Primary dimensions are in inches.
Dimensions in parentheses are millimeters.



HORSEPOWER CHART

PUMP DISPLACEMENT AT SPECIFIED POWERS AND PRESSURES*							
COMMON ENGINE POWERS		PUMP OPERATING PRESSURE					
		psi	bar	psi	bar	psi	bar
		30,000	2,068	36,000	2,482	40,000	2,750
gpm	lpm	HP	kW	HP	kW	HP	kW
3	10	58	37	70	46	77	51
4	15	77	55	93	69	103	76
5.2	19.5	101	72	121	90	134	100

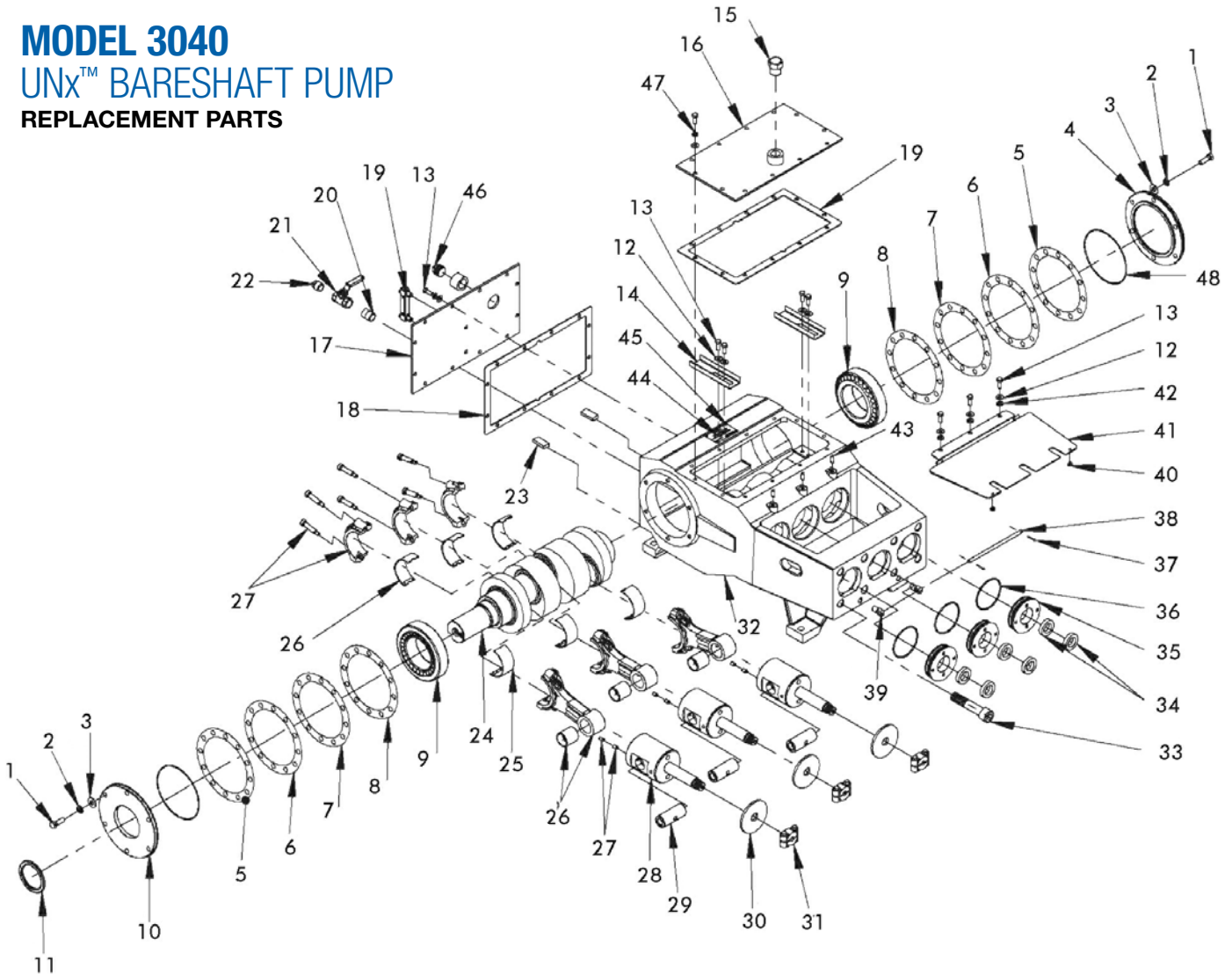
*Displacement (flow) values represented refer to "theoretical" flow, neglecting inefficiency resulting from compressibility of water and expansion of pressure-bearing components.

PUMP & FLUID ENDS

40,000 PSI



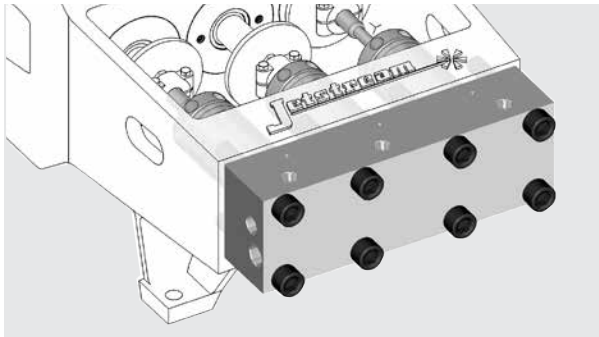
MODEL 3040
UNx™ BARESHAFT PUMP
REPLACEMENT PARTS



PUMP & FLUID ENDS

PART BREAKDOWN

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	26435	Capscrew	17	55252	Plate, Back Cover	33	26462	Capscrew
2	26558	Washer	18	26496	Gasket, Cover Plate	34	25536	Oil Seal
3	26798	Washer	19	71318	Gauge, Oil Level	35	51712	Seal Plate
4	51733	Frame Cap, Outboard	20	25465	Nipple	36	26478	O-Ring
5	26495-3	Shim, 0.005" Thick	21	27101	Ball Valve	37	26468	Cotter Pin
6	26495-2	Shim, 0.0075" Thick	22	25928	Plug	38	51666	Trunnion Rod
7	26495-1	Shim, 0.010" Thick	23	26705	Magnet	39	51659	Trunnion
8	26495	Shim, 0.020" Thick	24	25508	Crankshaft	40	27592	Grommet
9	25541	Bearing, Crankshaft	25	26486	Bearing, Journal	41	53681	Cover, Rod Box
10	51732	Frame Cap, Inboard	26	51749	Connecting Rod	42	27616	Washer
11	25428	Crankshaft Seal	27	25132	Setscrew	43	26483	Setscrew
12	25251	Washer	28	51738	Crosshead	44	26590	Caution Plate
13	26492	Capscrew	29	52077	Pin, Crosshead	45	26379	Caution Plate Screw
14	26484	Oil Trough	30	26623	Deflector	46	29738	Plug
15	26360	Breather Cap	31	51737	Plunger Coupling	47	25249	Washer
16	50807	Plate, Top Cover	32	51748	Power Frame	48	71016	O-Ring



UNx™ FLUID END

FEATURES AND BENEFITS

The Jetstream 40,000 psi UNx Fluid End is standard on every Jetstream 40,000 psi unit or bareshaft pump. It is also available as a conversion package for popular pump models or as an addition to an existing Jetstream 3600 or 4200 pump. Please refer to the catalog pages that follow for details on available models.

Every UNx Fluid End Features:

Serviceability

- Reduced downtime and maintenance
- Five minute packing change
- Fifteen minute pop-out valve cartridge change
- No special tools or equipment required
- Plungers clamped, NOT threaded

Simplicity

- Fewer parts than other 40,000 psi fluid ends
- Uni-Valve™ one-piece cartridges include suction & discharge valves, seats, springs, and seals
- Swing-down manifold for easy access to components

Versatility

- Fast in-the-field pressure range conversion with simple bolt-on Jetstream UNx Fluid Ends
- Convertibility of the UNx design allows one unit to do the work that another manufacturer would require multiple units or several hours of downtime to perform

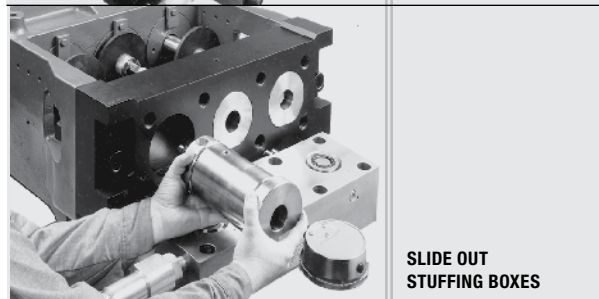
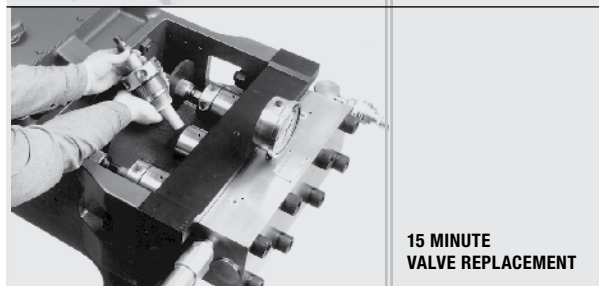
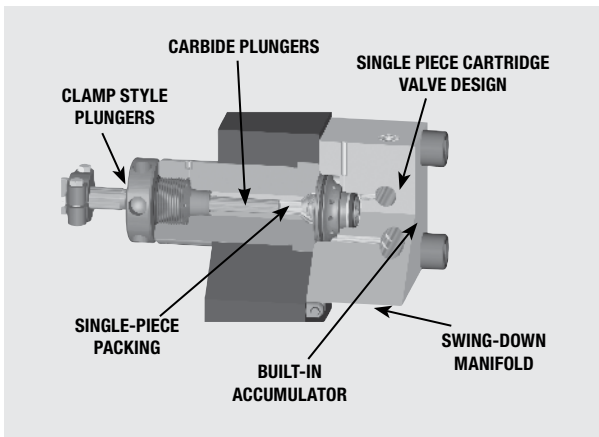
40,000 psi UNx Fluid End Features

- Water lubricated, single-piece high-lubricity packing ring
- Solid carbide plungers and plunger bushings
- Specially designed discharge and top port connections that are superior to industry standard connections
- High volumetric efficiency
- All pressure-bearing components precision machined from high quality stainless steel
- Pulsation dampener built in to manifold
- **All 40K Fluid Ends include a gauge, adapter and two rupture disc holders**

Part No. 28634

Advanced UNx Waterblast Pump DVD

Order for more information on the UNx Fluid End design.

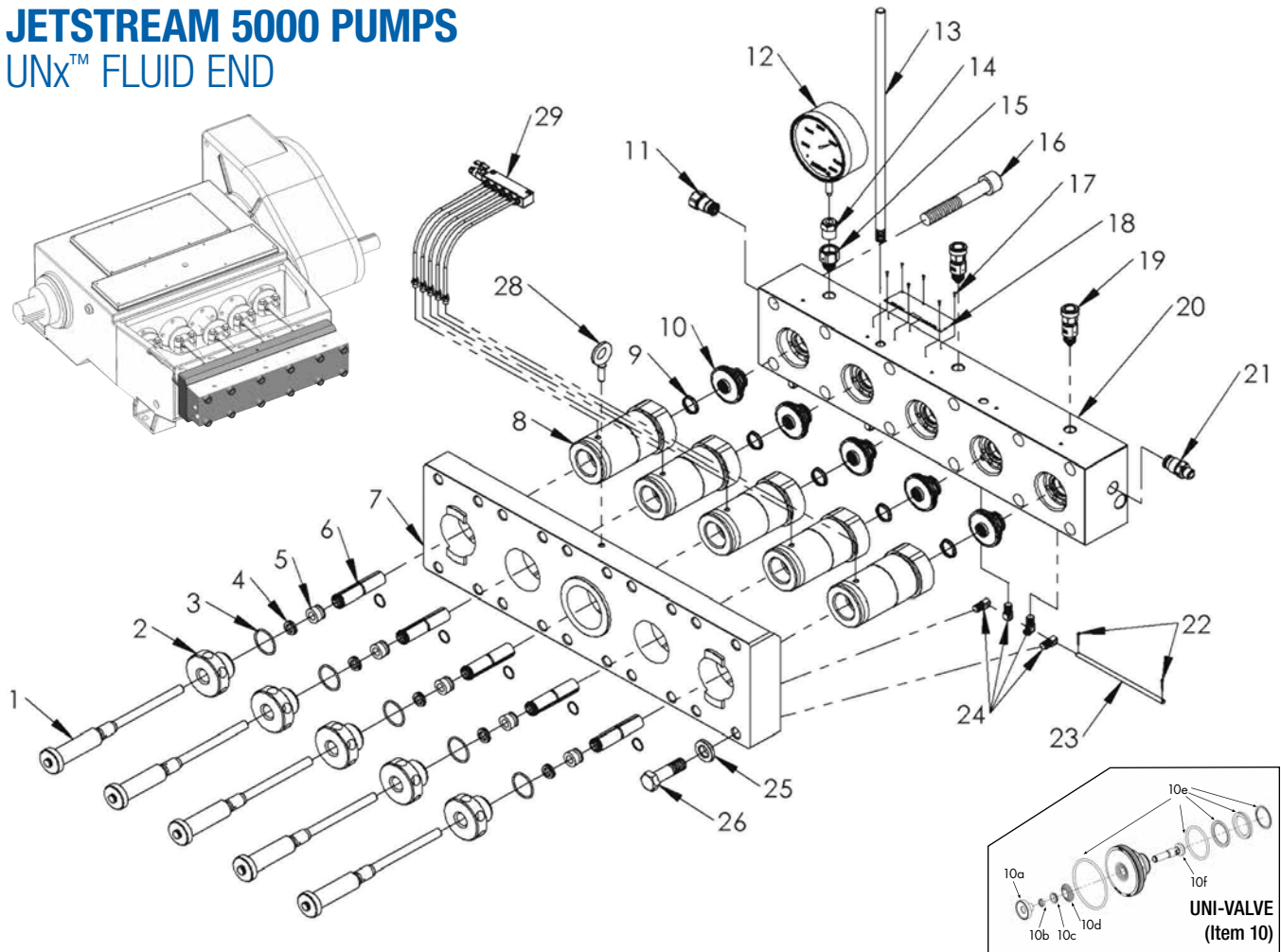


PUMP & FLUID ENDS

40,000 PSI



JETSTREAM 5000 PUMPS UNx™ FLUID END



PUMP & FLUID ENDS

FLUID END PART NO.	PLUNGER SIZE		5000 PUMPS							
	NO.	DIAMETER		PLUNGER STROKE		MAX. RPM	MAX. FLOW		MAX. OPERATING PRESSURE	
		in	mm	in	mm		gpm	lpm	psi	bar
55292	#8	0.73	18.54	5	127	2000	18.7	70.9	40,000	2,750

*Includes gauge, adapter and two rupture disc holders. Electric units require bypass valve, not included.

PART BREAKDOWN

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	55279	#8 Plunger	10c	55231	Retainer Spring	19	53505	Rupture Disc Holders
2	54101	Gland Nut	10d	27509	Valve Spring	20	55277	Manifold
3	26464	O-Ring	10e	54143	Seal Kit	21	53672	Adapter, Pump Discharge x 7/8" Type M Male
4	27481	#8 Guide Bushing	10f	53491	Valve, Discharge	22	26468	Cotter Pin
5	54118	#8 Packing	11	53589	Pump Discharge Plug	23	50295	Trunnion Rod
6	55291	#8 Sleeve	12	27488	Gauge (0-60,000 psi)	24	51659	Trunnion
7	54627	Adapter Plate	13	52114	Lifting Rod	25	54638	Washer
8	55278	Stuffing Box	14	28090	Anti-Vibration Gland Set	26	60248	Capscrew, Adapter Plate
9	54125	Stuffing Box Seal (Face Seal)	15	53572	Adapter, Male Port x 9/16" HP Female	27	50889	Pump Wrench
10	53495	Uni-Valve	16	26500	Capscrews	28	J70287	Lifting Eye
10a	53489	Valve Suction	17	26379	Screws, Caution Plate	29	54690	Lube Harness
10b	55229	Keeper	18	26589	Caution Plate			

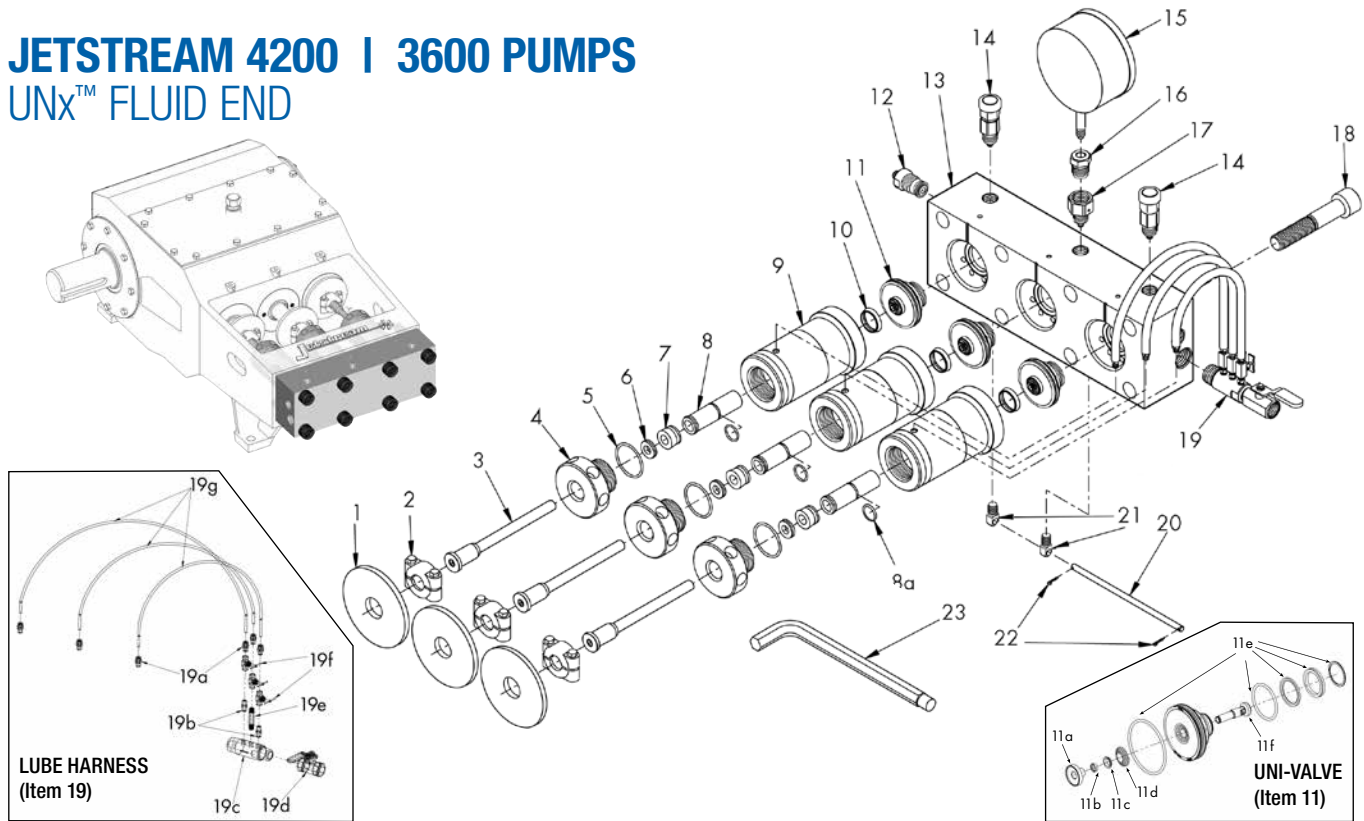
PUMP & FLUID ENDS

40,000 PSI



JETSTREAM 4200 | 3600 PUMPS UNx™ FLUID END

PUMP & FLUID ENDS



FLUID END PART NO.*	PLUNGER SIZE		4200 PUMPS							3600 PUMPS							
	NO.	DIAMETER		PLUNGER STROKE		MAX. RPM	MAX. FLOW		MAX. OPERATING PRESSURE		PLUNGER STROKE		MAX. RPM	MAX. FLOW*		MAX. OPERATING PRESSURE	
		in	mm	in	mm		gpm	lpm	psi	bar	in	mm		gpm	lpm	psi	bar
53540	#6	0.600	15.24	4.25	108	500	7.8	29.5	40,000	2,750	3.63	92	550	7.3	27.7	40,000	2,750
53545	#7	0.670	17.02	4.25	108	500	9.7	36.8	40,000	2,750	3.63	92	550	9.1	34.6	32,000	2,207
53550	#8	0.730	18.54	4.25	108	500	11.6	43.7	40,000	2,750	3.63	92	550	10.8	41.0	27,000	1,862

*Includes gauge, adapter and two rupture disc holders. Electric units require by pass valve, not included.

PART BREAKDOWN

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	26487	Deflector	8	54098	#8 Sleeve	17	53572	Adapter, Male Port x 9/16" HP Female
2	51736	Plunger Coupling	9	54099	Stuffing Box	18	26500	Manifold Bolt
3	53561	#6 Plunger	10	54125	Stuffing Box Seal (Face Seal)	19	53795	Lube Harness
	53562	#7 Plunger	11	53495	Uni-Valve	19a	27732	Hose Fitting
	53563	#8 Plunger		11a	53489	Valve, Suction	19b	26465
4	54101	Gland Nut	11b	55229	Keeper	19c	53792	Manifold, lube
5	26464	O-Ring	11c	55231	Retainer Spring	19d	27101	Ball Valve
	27479	#6 Guide Bushing	11d	27509	Valve, Spring	19e	60815	Nipple Large
	27480	#7 Guide Bushing	11e	54143	Seal Kit	19f	27475	Needle Valve
	27481	#8 Guide Bushing	11f	53491	Valve, Discharge	19g	27740	Hose (order in feet)
6	54116	#6 Packing	12	See Pump Discharge Fittings Pages E-3 & E-4		20	50295	Trunnion Rod
	54117	#7 Packing	13	53754	Manifold	21	51659	Trunnion
	54118	#8 Packing	14	53505	Rupture Disc Holder	22	26468	Cotter Pin
7	54096	#6 Sleeve	15	27488	Gauge (0-60,000 psi)	23	50889	Pump Wrench
	54097	#7 Sleeve	16	28090	Anti-Vibration Gland Set			

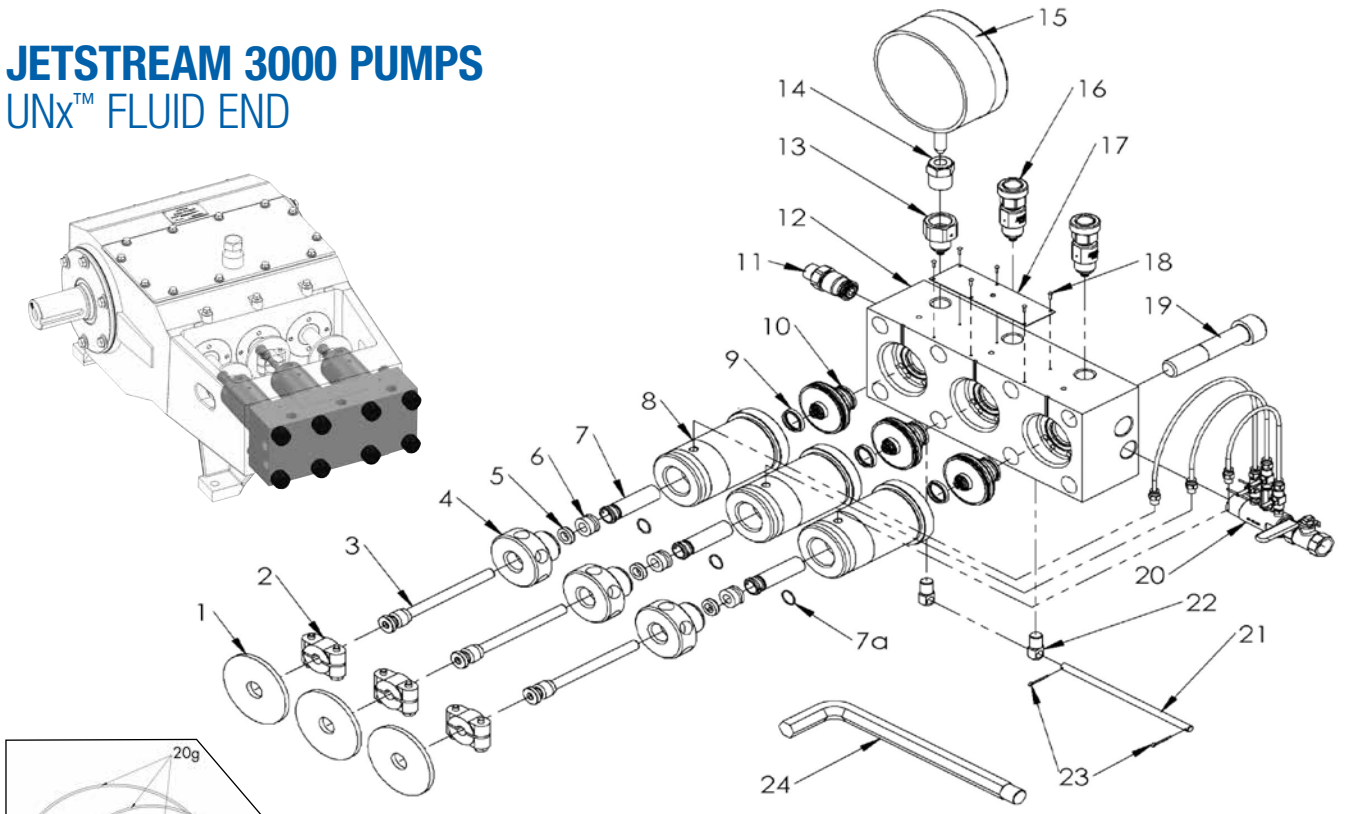
PUMP & FLUID ENDS

40,000 PSI

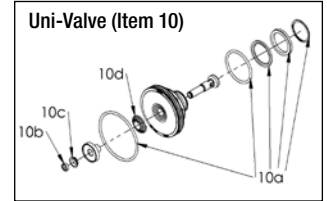
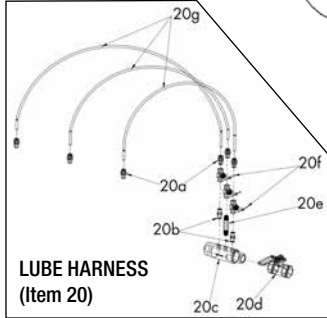


JETSTREAM 3000 PUMPS
UNx™ FLUID END

PUMP & FLUID ENDS



1.Power end component included in drawing for convenience. Not included with new fluid ends.



FLUID END PART NO.*	PLUNGER SIZE			PLUNGER STROKE		MAX. RPM	MAX. FLOW		MAX. OPERATING PRESSURE	
	NO.	DIAMETER		in	mm		gpm	lpm	psi	bar
		in	mm							
J55635	#5	0.530	13.46	3.00	76	600	5.2	19.5	40,000	2,750

*Includes gauge, adapter and two rupture disc holders. Electric units require by pass valve, not included.

PART BREAKDOWN

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	26623	Deflector ¹	10c	J55636	Spring Retainer	20	53795	Lube Harness
2	51737	Plunger Coupling ¹	10d	J70300	Spring	20a	27732	Hose Fitting
3	J55646	#5 Plunger	11	53672	Adapter, Pump Discharge x 7/8" Type M Male	20b	26465	Nipple
4	J55643	Gland Nut	12	J55631	Manifold	20c	53792	Manifold, Lube
5	J70298	#5 Guide Bushing	13	53572	Adapter, Port x 9/16" HP Female	20d	27101	Ball Valve
6	J70299	#5 Packing	14	28090	Anti-Vibration Gland Set	20e	60815	Nipple, Large
7	J55647	#5 Sleeve	15	27488	Pressure Gauge	20f	27475	Needle, Valve
8	J55641	#5 Stuffing Box	16	53505	Rupture Disc Assembly	20g	27740	Hose (order in feet)
9	J70301	Stuffing Box Seal (Face Seal)	17	J55673	Caution Plate	21	50295	Trunnion Rod ¹
10	J55630	Uni-Valve	18	26379	Screws, Caution Plate	22	51659	Trunnion
10a	J55657	Seal Kit	19	26462	Manifold Bolt ¹	23	26468	Cotter Pin ¹
10b	J55634	Keeper				24	50064	Pump Wrench

UNx™ FLUID END UPGRADES

Jetstream has created a wide variety of UNx Fluid Ends conversions to adapt to your existing competitor pump. The upgrade delivers all of the benefits of the UNx Fluid End design:

- Superior performance
- Greater flexibility in the field
- Reduced downtime and maintenance
- See UNx Features and Benefits on page A-15

Contact your Regional Sales Manager for inquiries on upgrades required.

JETSTREAM FLUID END CONVERSIONS				
FLUID END PART NO.	FLUID END MODEL	DESCRIPTION	MANUFACTURER	53750 MANUFACTURER MODEL
56831	3040N	#5 Triplex	NLB	1012 / 10120
53750*	4240N	#6 Triplex	NLB / Union	10150, 10200, 10225, 15203, 20153, 20156, 20203, 20225, 24155, 24205, 24225, 40201 and others / TD-120
53755*	4240N	#7 Triplex		
53700*	4240QN	#6 Quintuplex	NLB / Union	10250, 20253, 36250 / QD-200
53705*	4240QN	#7 Quintuplex		
55320	3740B	#6 Triplex	Butterworth / Gardner Denver	L-375, T-375, I-375, TF-375, L-130
55325	3740B	#7 Triplex		
59578	3740B	#8 Triplex without Mounting Package		
53760*	4540B	#6 Triplex	Butterworth / Gardner Denver	L-450, TF-450
53765*	4540B	#7 Triplex		
53770*	4540B	#8 Triplex		
56745	4540B	#8 Triplex includes Filter Package		
J55640	3740WZ	#5 Triplex	Woma	150-Z
56754	3740W	#5 Triplex	Woma	1502
59558	3740WM	#5 Triplex	Woma	180-M

*Detailed information to follow on pages B-15 to B-17

JETSTREAM FLUID END CONVERSIONS				
FLUID END PART NO.	FLUID END MODEL	DESCRIPTION	MANUFACTURER	EURO MODEL INCLUDES
J55830	3040	#5 Triplex	Jetstream	Euro Filter Package Euro Lube Harness Dual Gauge Euro Bypass Valve
55192	3640	#6 Triplex		
55342	3640	#7 Triplex		
55349	4240	#6 Triplex		
55196	4240	#7 Triplex		
55200	4240	#8 Triplex		
55356	5040Q	#8 Triplex		

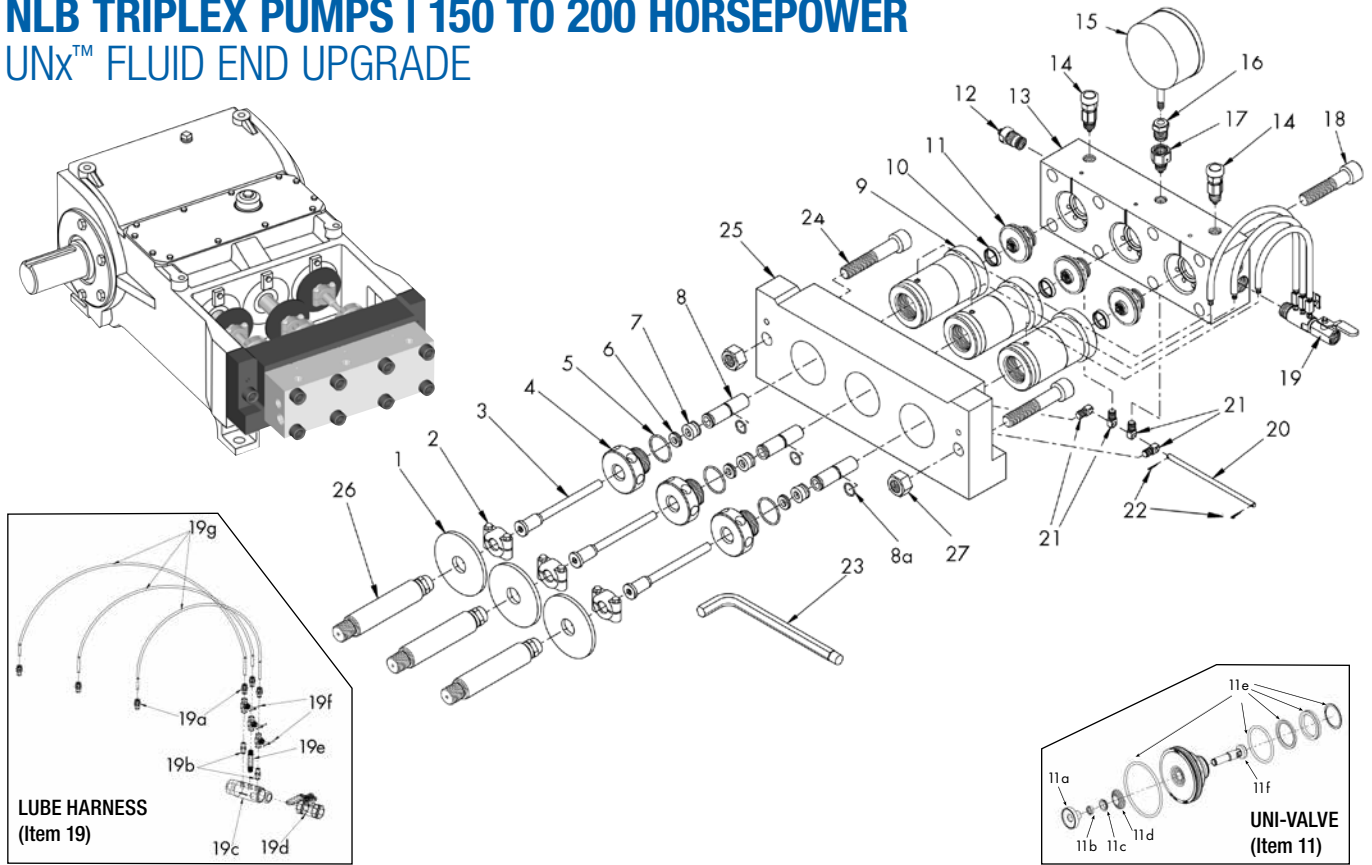
PUMP & FLUID ENDS

40,000 PSI



NLB TRIPLEX PUMPS | 150 TO 200 HORSEPOWER
UNx™ FLUID END UPGRADE

PUMP & FLUID ENDS



FLUID END PART NO.*	PLUNGER SIZE		PUMP DISPLACEMENT AT SPECIFIED PUMP SPEEDS								MAX. OPERATING PRESSURE		
	NO.	DIAMETER		200 RPM		300 RPM		400 RPM		500 RPM		psi	bar
		in	mm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm		
53750	#6	0.600	15.24	3.1	11.8	4.7	17.7	6.2	23.6	7.8	29.5	40,000	2,750
53755	#7	0.670	17.02	3.9	14.7	5.8	22.1	7.8	29.5	9.7	36.8	40,000	2,750

*Includes gauge, adapter and two rupture disc holders. Electric units require bypass valve, not included.

PART BREAKDOWN

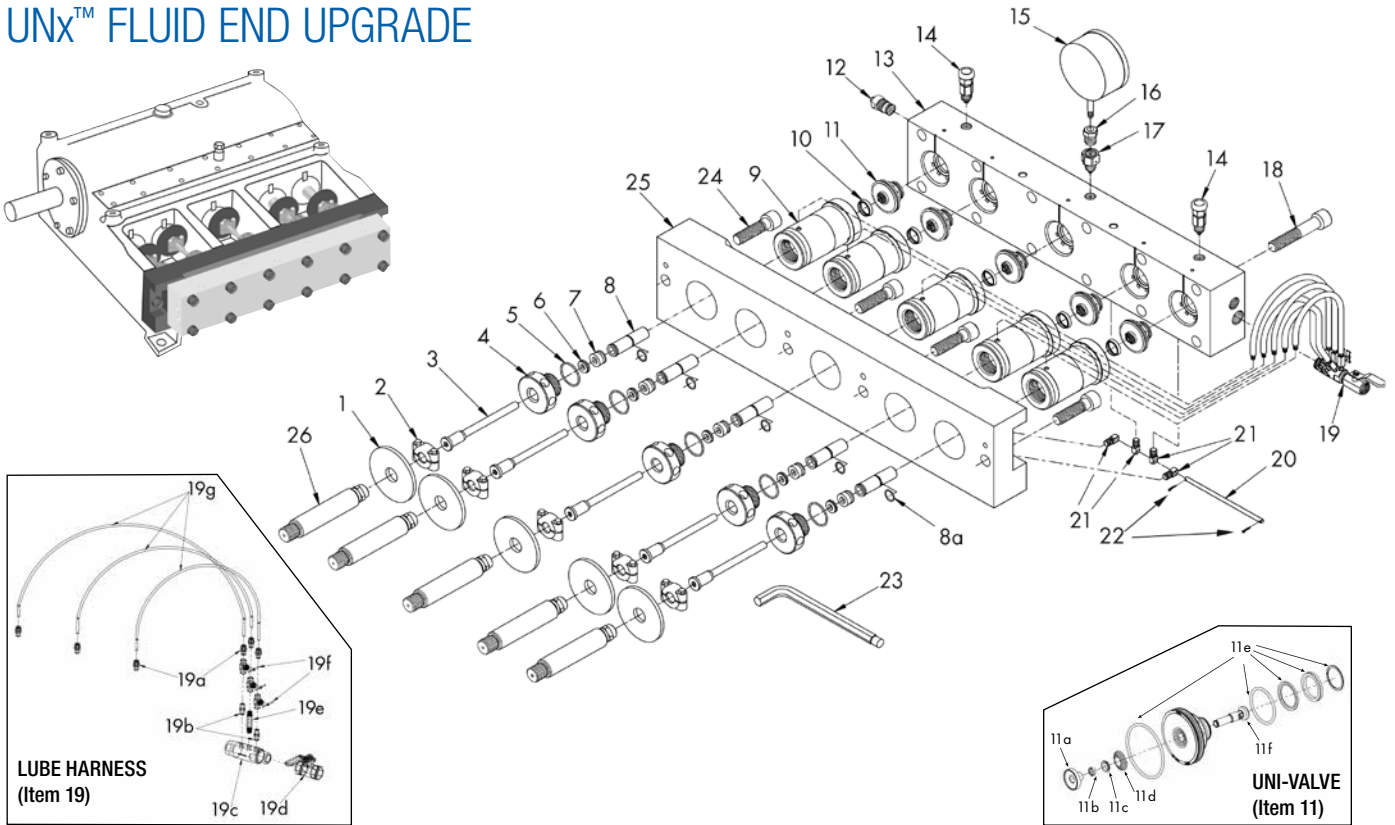
ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	26487	Deflector	11a	53489	Valve, Suction	19	53795	Lube Harness
2	51736	Plunger Coupling	11b	55229	Keeper	19a	27732	Hose Fitting
3	53561	#6 Plunger	11c	55231	Retainer, Spring	19b	26465	Nipple
	53562	#7 Plunger	11d	27509	Valve, Spring	19c	53792	Manifold, Lube
4	54101	Gland Nut	11e	54143	Seal Kit	19d	27101	Ball Valve
5	26464	O-Ring	11f	53491	Valve, Discharge	19e	60815	Nipple, Large
	27479	#6 Guide Bushing	12	See Pump Discharge Fittings Pages E-3 & E-4	19f	27475	Needle Valve	
27480	#7 Guide Bushing	19g			27740	Hose (order in feet)		
7	54116	#6 Packing	13	53456	Manifold	20	50295	Trunnion Rod
	54117	#7 Packing	14	53505	Rupture Disc Holder	21	51659	Trunnion
8	54096	#6 Sleeve	15	27488	Gauge (0-60,000 psi)	22	26468	Cotter Pin
	54097	#7 Sleeve	16	28090	Anti-Vibration Gland Set	23	50889	Pump Wrench
8a	26522	O-Ring	17	53572	Adapter, 40K Port Male x 9/16" HP Female	24	26500	Adapter Plate Bolt
9	54099	Stuffing Box	18	25607	Manifold Bolt	25	50293	Adapter Plate
10	54125	Stuffing Box Seal				26	51766	Crosshead Stub
11	53495	Uni-Valve				27	26669	Nut

PUMP & FLUID ENDS

40,000 PSI



NLB QUINTUPLEX PUMPS | 250 HORSEPOWER UNx™ FLUID END UPGRADE



FLUID END PART NO.*	PLUNGER SIZE		PUMP DISPLACEMENT AT SPECIFIED PUMP SPEEDS								MAX. OPERATING PRESSURE		
	NO.	DIAMETER		150 RPM		200 RPM		300 RPM		400 RPM		psi	bar
		in	mm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm		
53700	#6	0.600	15.24	3.9	14.8	5.2	19.7	7.8	29.5	10.4	39.4	40,000	2,750
53705	#7	0.670	17.02	4.9	18.4	6.5	24.6	9.7	36.8	13.0	49.1	40,000	2,750

*Includes gauge, adapter and two rupture disc holders. Electric units require bypass valve, not included.

PART BREAKDOWN

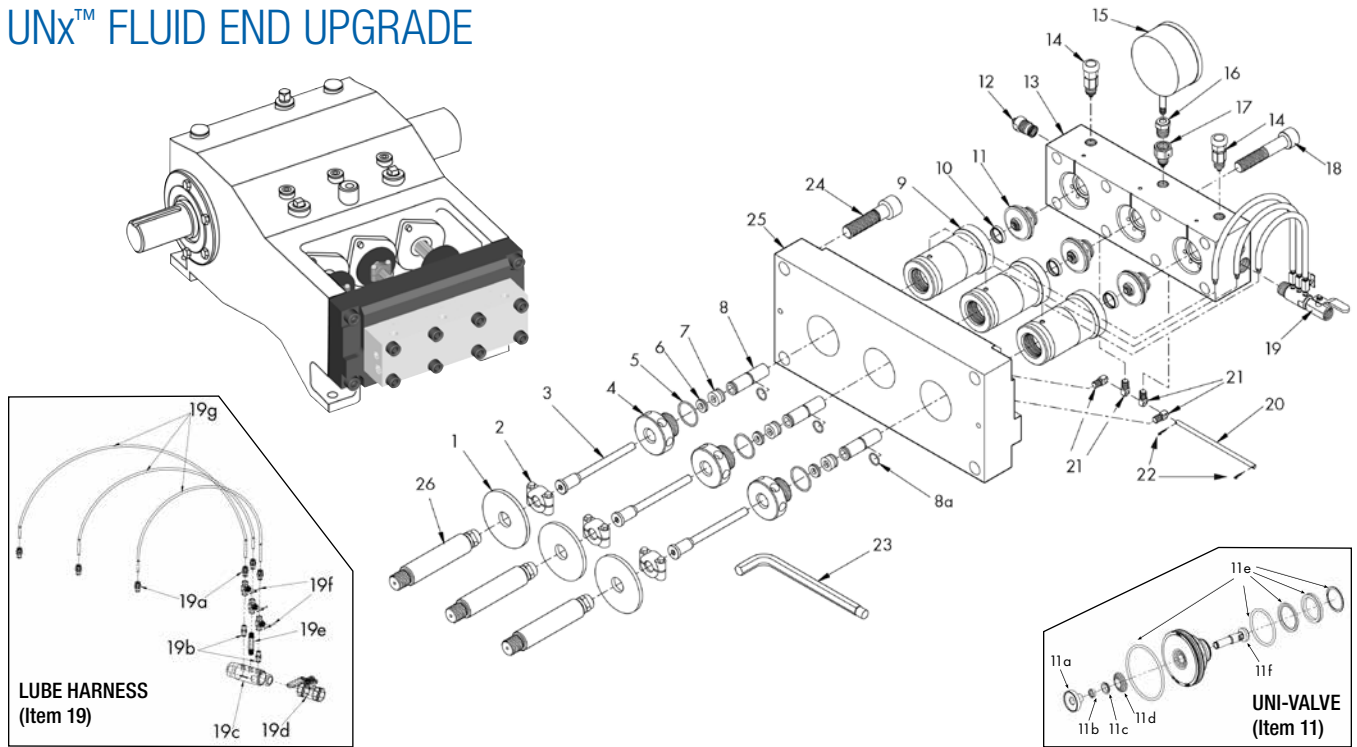
ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	26487	Deflector	11	53495	Uni-Valve	19	53795	Lube Harness
2	51736	Plunger Coupling	11a	53489	Valve, Suction	19a	27732	Hose Fitting
3	53561	#6 Plunger	11b	55229	Keeper	19b	26465	Nipple
	53562	#7 Plunger	11c	55231	Retainer, Spring	19c	53792	Manifold, Lube
4	54101	Gland Nut	11d	27509	Valve, Spring	19d	27101	Ball Valve
5	26464	O-Ring	11e	54143	Seal Kit	19e	60815	Nipple Large
	27479	#6 Guide Bushing	11f	53491	Valve, Discharge	19f	27475	Needle Valve
6	27480	#7 Guide Bushing	12	See Pump Discharge Fittings Pages E-3 & E-4		19g	27740	Hose (order in feet)
	54116	#6 Packing	13	53754	Manifold	20	50295	Trunnion Rod
7	54117	#7 Packing	14	53505	Rupture Disc Holder	21	51659	Trunnion
	54096	#6 Sleeve	15	27488	Gauge (0-60,000 psi)	22	26468	Cotter Pin
8	54097	#7 Sleeve	16	28090	Anti-Vibration Gland Set	23	50889	Pump Wrench
	8a	26522	O-Ring	17	53572	Adapter, 40K Port Male x 9/16" HP Female	24	27550
9	54099	Stuffing Box	18	25607	Manifold Bolt	25	53602	Adapter Plate
10	54125	Stuffing Box Seal (Face Seal)				26	51766	Crosshead Stub

PUMP & FLUID ENDS

40,000 PSI



BUTTERWORTH L-450 | GARDNER-DENVER TF-450 UNx™ FLUID END UPGRADE



PUMP & FLUID ENDS

FLUID END PART NO.*	PLUNGER SIZE		PUMP DISPLACEMENT AT SPECIFIED PUMP SPEEDS								MAX. OPERATING PRESSURE		
	NO.	DIAMETER		200 RPM		300 RPM		400 RPM		500 RPM		psi	bar
		in	mm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm		
53760	#6	0.600	15.24	3.3	12.5	5.0	18.8	6.6	25.0	8.3	31.3	40,000	2,750
53765	#7	0.670	17.02	4.1	15.6	6.2	23.4	8.2	31.2	10.3	39.0	40,000	2,750
53770	#8	0.730	18.54	4.9	18.5	7.3	27.8	9.8	37.0	12.2	46.3	40,000	2,750

*Includes gauge, adapter and two rupture disc holders. Electric units require bypass valve, not included.

PART BREAKDOWN

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	26487	Deflector	9	53769	Stuffing Box	18	25607	Manifold Bolt
2	51736	Plunger Coupling	10	54125	Stuffing Box Seal (Face Seal)	19	53795	Lube Harness
3	53561	#6 Plunger	11a	53489	Valve, Suction	19a	27732	Hose Fitting
	53562	#7 Plunger	11b	55229	Keeper	19b	26465	Nipple
	53563	#8 Plunger	11c	55231	Retainer, Spring	19c	53792	Manifold, Lube
4	54101	Gland Nut	11d	27509	Valve, Spring	19d	27101	Ball Valve
5	26464	O-Ring	11e	54143	Seal Kit	19e	60815	Nipple Large
6	27479	#6 Guide Bushing	11f	53491	Valve, Discharge	19f	27475	Needle Valve
	27480	#7 Guide Bushing	12	See Pump Discharge Fittings Pages E-4 & E-5		19g	27740	Hose (order in feet)
	27481	#8 Guide Bushing	13	53756	Manifold	20	50295	Trunnion Rod
7	54116	#6 Packing	14	53505	Rupture Disc Holder	21	51659	Trunnion
	54117	#7 Packing	15	27488	Gauge (0-60,000 psi)	22	26468	Cotter Pin
	54118	#8 Packing	16	28090	Anti-Vibration Gland Set	23	50889	Pump Wrench
8	54096	#6 Sleeve	17	53572	Adapter, 40K Port Male x 9/16" HP Female	24	26212	Adapter Plate Bolt
	54097	#7 Sleeve				25	51714	Adapter Plate
	54098	#8 Sleeve				26	51719	Plunger Adapter
8a	26522	O-Ring						



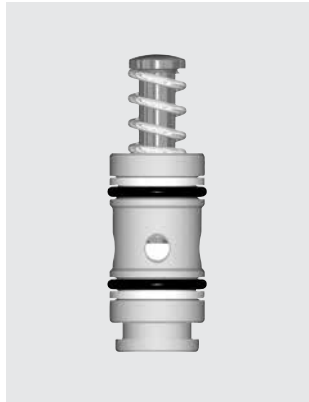
PUMP ACCESSORIES

ALL THE PARTS YOU NEED, NONE OF THE PARTS YOU SEE AS A NECESSITY.

Jetstream offers recommended pump and fluid end parts to ensure a safe and uninterrupted workday. From spare parts packages to filters to pump tools, necessary and optional parts associated with the bareshaft pump and fluid end are provided in this section. These parts are the skeleton to the functionality of the fluid end. Easily maintained parts ensure the pump is performing at required pressures throughout the entire job.

The Pump Accessories section includes the following parts and packages:

- Fluid End Spare Parts Packages
- Pump Tools (Wrenches, Studs, Lubricants)
- Filters and Filter Assemblies
- Pressure Gauges
- Rupture Disc Assembly and Discs
- Valves (Bypass, Air-Operated, Tumble Box)
- Hydro-Throttle Assemblies
- Spare Cartridges





SPARE PARTS PACKAGES UNx™ FLUID END

A must-have for field repairs, these packages include all major fluid end replacement packaged together for easy transport and storage.

- Available for most 40K UNx fluid ends.
- Packaged in a top-of-the-line, waterproof Pelican® case with tough custom foam inlay.

Package Contents

- 1 or 3 Plungers.
- 3 Uni-Valves.
- 3 Packing Sets.
- 3 Uni-Valve Seal Kits.
- 10 Burst Discs (five each at primary and secondary relief pressures, or ten at the same relief pressure if only one rupture disc holder is used).
- Locking waterproof case and keys.

PACKAGING NOTES:

of Plungers **S1** or **SP** | **S1**=1 plunger | **SP**=3 plungers
 Fluid End Model 304, 374, or 424
 Working Pressure 30, 36 or 40
 Plunger Size 5, 6, 7 or 8
 Burst Discs **B** or **S** | **B**=five discs at primary and secondary relief pressures;
 S=ten discs for use with secondary relief device

1 PLUNGER PACKAGES			3 PLUNGER PACKAGES		
Part No.	Pressure (psi)	Description	Part No.	Pressure (psi)	Description
S1304-30-5-B	30,000	3040 #5	SP304-30-5-B	30,000	3040 #5
S1304-36-5-B	36,000	3040 #5	SP304-36-5-B	36,000	3040 #5
S1304-40-5-B	40,000	3040 #5	SP304-40-5-B	40,000	3040 #5
S1424-30-6-B	30,000	4240 #6	SP304N-36-5-B	36,000	3040N #5
S1424-30-6-S	30,000	4240 #6	SP374W-36-5-B	36,000	3740W/WZ #5
S1424-30-7-B	30,000	4240 #7	SP424-30-6-B	30,000	4240 #6
S1424-30-7-S	30,000	4240 #7	SP424-30-6-S	30,000	4240 #6
S1424-30-8-B	30,000	4240 #8	SP424-30-7-B	30,000	4240 #7
S1424-30-8-S	30,000	4240 #8	SP424-30-7-S	30,000	4240 #7
S1424-36-6-B	36,000	4240 #6	SP424-30-8-B	30,000	4240 #8
S1424-36-6-S	36,000	4240 #6	SP424-30-8-S	30,000	4240 #8
S1424-36-7-B	36,000	4240 #7	SP424-36-6-B	36,000	4240 #6
S1424-36-7-S	36,000	4240 #7	SP424-36-6-S	36,000	4240 #6
S1424-36-8-B	36,000	4240 #8	SP424-36-7-B	36,000	4240 #7
S1424-36-8-S	36,000	4240 #8	SP424-36-7-S	36,000	4240 #7
S1424-40-6-B	40,000	4240 #6	SP424-36-8-B	36,000	4240 #8
S1424-40-6-S	40,000	4240 #6	SP424-36-8-S	36,000	4240 #8
S1424-40-7-B	40,000	4240 #7	SP424-40-6-B	40,000	4240 #6
S1424-40-7-S	40,000	4240 #7	SP424-40-6-S	40,000	4240 #6
S1424-40-8-B	40,000	4240 #8	SP424-40-7-B	40,000	4240 #7
S1424-40-8-S	40,000	4240 #8	SP424-40-7-S	40,000	4240 #7
			SP424-40-8-B	40,000	4240 #8
			SP424-40-8-S	40,000	4240 #8

PUMP ACCESSORIES

PUMP ACCESSORIES

40,000 PSI



TOOLS

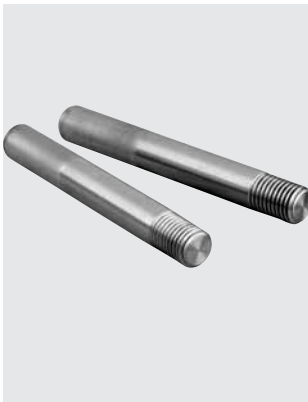
PUMP ACCESSORIES



PUMP WRENCHES

The only special tool needed to work on a Jetstream UNx pump. For use with manifold and gland nut.

Size 7/8"	Size 3/4"
Part No. 50889	Part No. 50064
5040	3040
4240	3040N
3640	3740W
4240N	2740WZ
4240QN	3740WM
3740B	
4540B	



MANIFOLD MOUNTING STUDS

For easy and safe removal of manifolds during pressure conversions that require a manifold change (e.g. 10,000psi-40,000psi). To use, replace the top two outer manifold bolts with the mounting studs. Then, remove all bolts and the trunnion rod (hinge rod). The manifold can then be easily slid out and replaced with another. Sold individually.

For use with the following models:	
Part No. 54261	Part No. 56742
5040	3040
4240	3040N
3640	3740W
4240N	3740WZ
240QN	3740WM
3740B	
4540B	



BELT TENSION GAUGE Part No. 26993

Ensure pump drive belts are properly tensioned for proper pump operation and maximum belt life. For use with V-belts.



BELT TENSION GAUGE Part No. 70930

For use with Power Band and synchronous belts.



VALVE PULLER Part No. 70179

The perfect tool for easily extracting uni-valves from the manifold. Sold individually.



PUMP OPERATION AND MAINTENANCE DVD

Part No. 70002

An excellent learning tool, the Pump Operation and Maintenance DVD from Jetstream covers important topics such as waterblast safety, waterblast unit and pump maintenance and operation.

PUMP ACCESSORIES

40,000 PSI



PUMP ACCESSORIES



BYPASS VALVE HAND ADJUSTABLE

A bypass valve diverts a portion of pump flow to a low-pressure outlet and can be used on diesel and electric units. For diesel engines, it is used to prevent bogging of the engine when using flows at the low end of the pump's capability. A bypass valve is required on electric units due to the non-adjustability of motor speed.

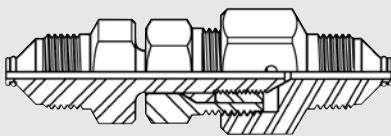
- Field-replaceable cartridge design for minimal downtime
- Hand adjustment—no wrench needed
- Mounts directly to fluid end manifold using 40,000 psi male port nipple shown below
- All pressure-bearing components are precision machined from stainless steel
- Two inlet ports utilize Jetstream 40,000 psi port connection for wear resistance and fast, simple connections

REPLACEMENT CARTRIDGE



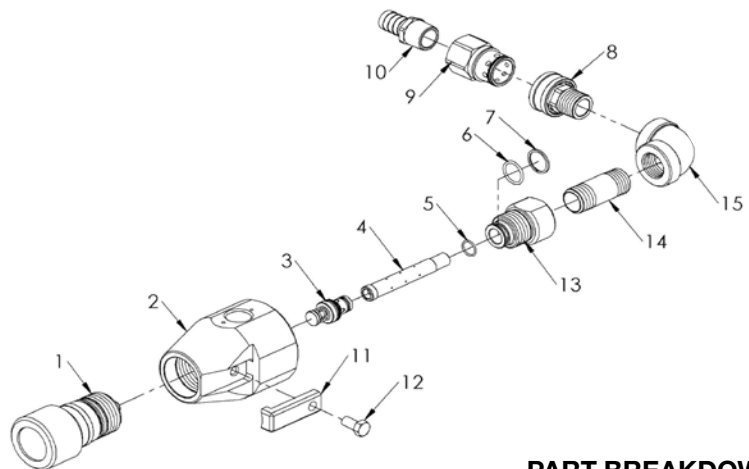
Easily replaceable valve cartridge enables the user to completely re-build the valve in about two minutes. Both the valve and seat are manufactured from hardened stainless steel and coated for maximum wear resistance and service life. **Part No. 53725**

40K MALE PORT NIPPLE



Used to connect bypass valve to fluid end manifold. **Part No. 53735**

PART NO.	MOUNTING STYLE	HIGH PRESSURE CONNECTIONS	OUTLET CONNECTION	MAX. OPERATING PRESSURE	
				psi	bar
53715	Pump-Mount	Jetstream 40K Port Female	3/4" Hose Barb	40,000	2,750
54303	Base-Mount				



PART BREAKDOWN

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	52144	Adjustment Knob	10	25796	Hose Barb
2	53713	Body	11	50795	Locking Arm
3	53725	Cartridge	12	25593	Capscrew
4	53726	Diffuser	13	53719	Outlet Adapter
5	26452	O-Ring (male side)	14	27644	Nipple
6	27641	O-Ring	15	71497	Elbow
7	53724	Back-Up Ring	16*	53735	40K Port Male Nipple
8	29713	Nipple	17*	54059	Replacement Seal
9	29714	Coupler			

*Not Shown

PUMP ACCESSORIES

40,000 PSI



PUMP ACCESSORIES



REGULATOR VALVE LONG HANDLE

The Regulator Valve allows for pressure adjustment on constant speed waterblasting pumps. This valve maintains a constant pressure independent of the flow while relieving a portion of the high pressure water back to a remote location at low pressure.

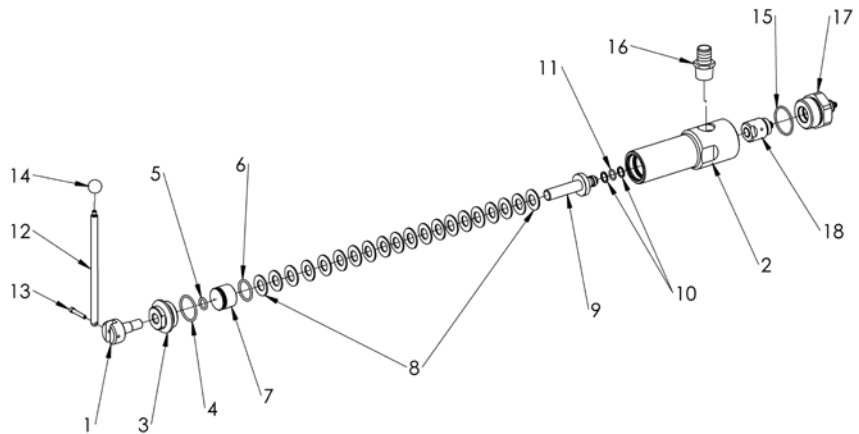
- Hand adjustable—no wrench needed
- Field-replaceable cartridge design for easy maintenance
- Mounts onto the fluid end

PART NO.	STYLE	HIGH PRESSURE CONNECTIONS	MAX. OPERATING PRESSURE	
			psi	bar
55525	Long Handle	Jetstream 40K Port Male	40,000	2750
60703	Long Handle	Jetstream 40K Port Female	40,000	2750

REPLACEMENT CARTRIDGE



Regulator valve utilizes a cartridge, to completely rebuild the valve in about 30 seconds.
Part No. 55545



PART BREAKDOWN

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	55524	Adjuster, Regulator,	10	70125	Ring, Back-up
2	55521	Body, Regulator, Vertical	11	25740	O-Ring
3	55523	Cap, End, Regulator,	12	55531	Handle, Regulator, Adjust
4	25165	O-Ring	13	27680	Capscrew
5	25212	O-Ring	14	70130	Ball,Knob
6	25125	O-Ring	15	26416	O-Ring
7	55522	Pusher, Spring, Regulator,	16	29722	Barb
8	70127	Spring, Disc	17	55518	Base Ay, Reg, Vertical, 40K M
9	55519	Plunger, Spring, Regulator,	18	55545	Cartridge Ay, Regulator,

PUMP ACCESSORIES

40,000 PSI



PUMP ACCESSORIES



DIVERTER VALVE AIR-OPERATED

The Air-Operated Diverter Valve allows an operator to remotely control pressure in 40,000 psi cleaning applications, specially in automated cleaning processes. Reduces operator fatigue by actuating the system pneumatically rather than mechanically.

When air is sent to the cylinder, the valve closes and allows the system to build pressure. The valve opens when the air is exhausted, reducing system pressure to near atmospheric.

- Quick cartridge overhaul for easy field maintenance
- Remote operation for added operator convenience and safety
- Pneumatic operation for reduced operator fatigue

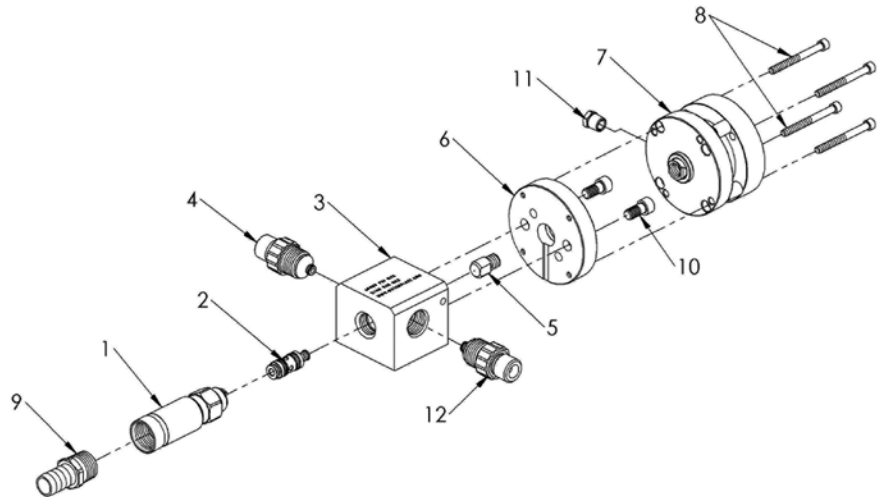
ASSEMBLY PART NO.	MOUNTING STYLE	CONNECTION TYPE		MAXIMUM FLOW RATE		MAX. OPERATING PRESSURE		INLET AIR PRESSURE			
		INLET	OUTLET	gpm	lpm	psi	bar	MIN.		MAX.	
53620X	Pump-Mount	7/8" Type M Male	9/16" Type M Male	13	49	40,000	2,750	70	4.8	125	8.6
55115	Base-Mount										

REPLACEMENT CARTRIDGE



Diverter valve utilizes a cartridge, to completely rebuild the dump valve in about 30 seconds.

Part No. 53475



PART BREAKDOWN

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	51864	Diffuser	7	54342*	Air Cylinder
2	53475	Cartridge	8	28399	Capscrew
3	53546	Body	9	25796	Hose Fitting
4	53570	Adapter, 7/8" Type M	10	27714	Capscrew
5	53424	Pusher	11	28364	Muffler
6	54321	Mounting Plate	12	53571	Adapter, 9/16" Type M

*Repair Kit for 2.5" Air Cylinder (54342) (Includes o-rings, bushings and wiper).

PUMP ACCESSORIES

40,000 PSI



PUMP ACCESSORIES



HYDRAULIC DIVERTER VALVE

The Hydraulic Diverter Valve allows an operator to remotely control pressure in 40,000 psi cleaning applications, specially in automated cleaning processes. Reduces operator fatigue by actuating the system hydraulically rather than mechanically.

When hydraulic pressure sent to the cylinder, the valve closes and allows the system to build pressure. The valve opens when the hydraulic pressure is exhausted, reducing system pressure to near atmospheric.

- Quick cartridge overhaul for easy field maintenance
- Remote operation for added operator convenience and safety
- Hydraulic operation for reduced operator fatigue

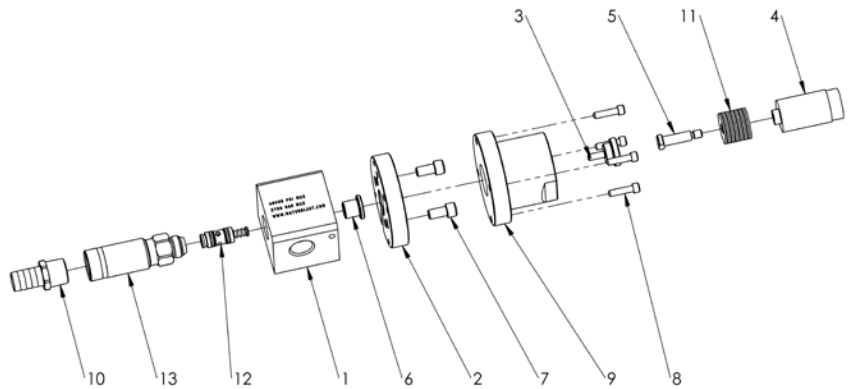
ASSEMBLY PART NO.	MOUNTING STYLE	CONNECTION TYPE		MAXIMUM FLOW RATE		MAX. OPERATING PRESSURE		INLET AIR PRESSURE			
		INLET	OUTLET	gpm	lpm	psi	bar	MIN.		MAX.	
62031	Pump-Mount	7/8" Type M Male	9/16" Type M Male	13	49	40,000	2,750	psi	bar	psi	bar
								500	34.4	5000	344.7

REPLACEMENT CARTRIDGE



Diverter valve utilizes a cartridge, to completely rebuild the dump valve in about 30 seconds.

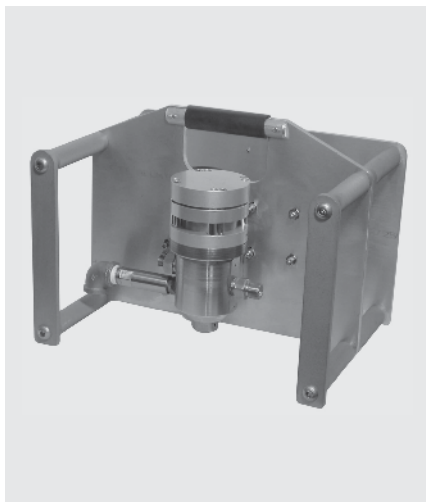
Part No. 53475



PART BREAKDOWN

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	53546	Body, DCF-40 Durasafe	8	26689	Capscrew
2	54321	Plate, Mounting, Air Cyl	9	60075	Adapter, Sa Hydraulic Cyl Mounting
3	62049	Pusher, Hydraulic Cyl	10	25796	Barb
4	60079	Cylinder, Hydraulic, Single Act	11	60026	Spring, Disc
5	60027	Guide, Spring, Hydraulic Cyl	12	53475	Cartridge AY,C-40
6	62050	Retainer, Valve	13	51864	Diffuser Ay
7	27114	Nipple			

TUMBLE BOX MULTI-MODE VALVE



MULTI-MODE VALVE FRONT VIEW



MULTI-MODE VALVE BACK VIEW

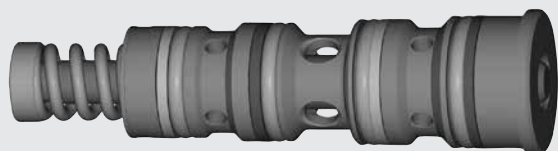
The Jetstream 40,000 psi Multi-Mode Valve is a combination air-actuated high pressure control valve and air preparation unit. The Multi-Mode Valve controls the flow of the filtered and lubricated air and high pressure water to the gun or other appropriate device. It can be operated in FOUR different configurations (see operation options on the next page) including the use of multiple guns (see Jetstream Tornado Guns) when configured for constant pressure or shut-off mode.

This Multi-Mode utilizes a self contained dual-seat cartridge that can be easily removed in a single piece and replaced in the field. Complete overhaul and modification can be accomplished in about one minute.

Rated for 40,000 psi (2,750 bar) maximum operating pressure, the control valve features connections specifically designed to resist wear and leakage common with high pressure connections. Adapters are included to connect high pressure hoses featuring the Type M or High Pressure connection, depending on the model ordered.

- Self contained one piece cartridge for easy removal, as opposed to multiple pieces for competitor type systems.
- Cartridge and other pressure containing components machined from hardened stainless steel and coated for longer wear life.
- Cartridge is hydraulically biased, for safer operation, as opposed to a spring return system which is susceptible to corrosion, wear and failure.
- Air supply pressure regulated to the custom designed actuation cylinder. This constant pressure eliminates damage to the valve caused by excessive activation forces.
- Regulator, filter, and oiler components protected against abuse and damage.
- Ergonomically designed for ease of use and transportation.
- Heavy duty, light weight aluminum frame (3/8" plate).

PART NO.	DIMENSIONS						CONNECTION TYPE	MAXIMUM FLOW RATE		MAX. OPERATING PRESSURE		AIR REQUIREMENTS				LUBRICATOR OIL
	WIDTH		DEPTH		HEIGHT			gpm	lpm	psi	bar	INLET AIR PRESSURE		psi	bar	
	in	mm	in	mm	in	mm						MIN.	MAX.			
53905	17.1	435	12.8	329	12.9	324	Type M Male	6.8	25.7	40,000	2,758	70	4.8	125	8.6	SAE 10W
54695							HP Female									



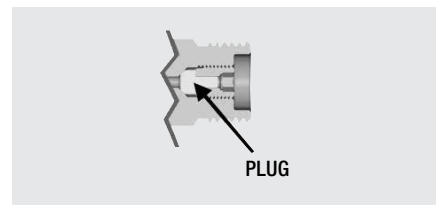
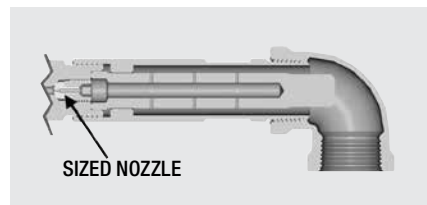
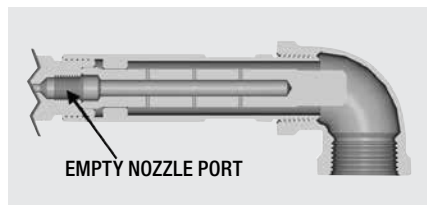
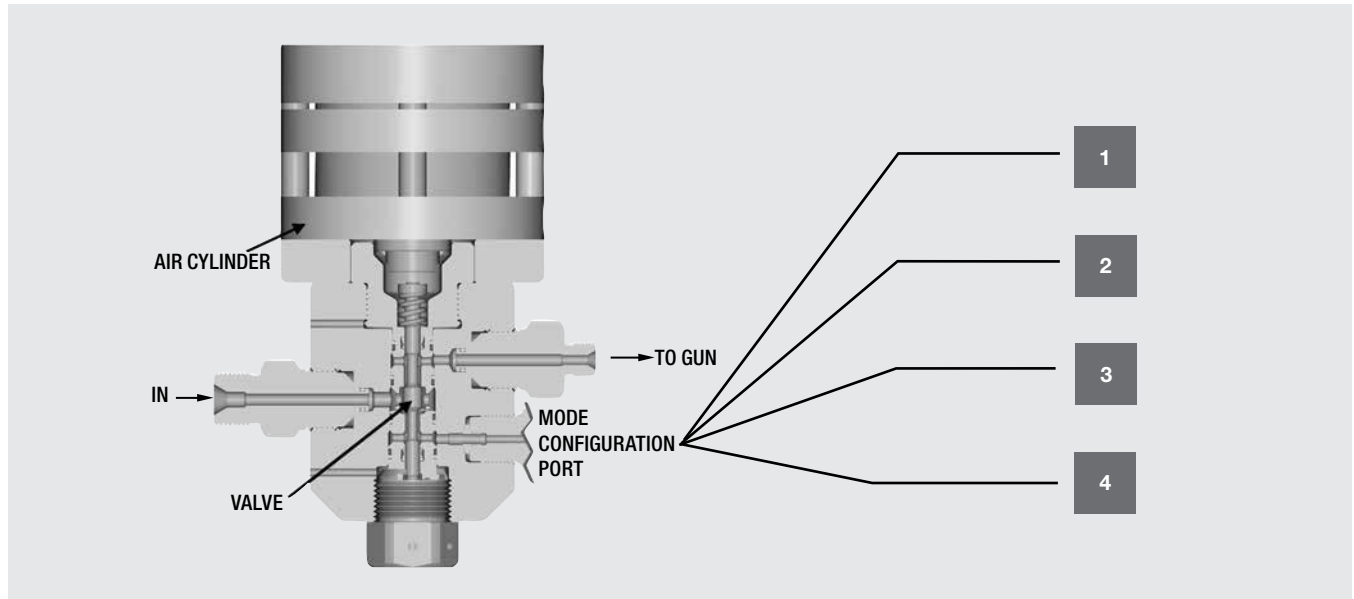
REPLACEMENT CARTRIDGE

Multi-Mode Valve utilizes C-40 Cartridge to completely rebuild the valve in about 30 seconds.

Part No. 54014

**MULTI-MODE VALVE
OPERATION OPTIONS**

**PUMP
ACCESSORIES**



1) Dump Mode

Configured for **single** gun operations. When the user is not blasting, the supply water is dumped to atmospheric pressure through the Multi-Mode Valve discharge port. The dumped water can be piped to a holding or recycle tank.

2) Constant Pressure Mode

Configured for **multiple** gun operation. When the user is not blasting, pressure is maintained throughout the system by means of a nozzle (specifically sized for each operators' gun flow rate) that is placed in the multi mode valve discharge orifice. Multiple guns can be used without significant pressure fluctuation when other guns are not blasting.

3) Dry Shut-Off Mode

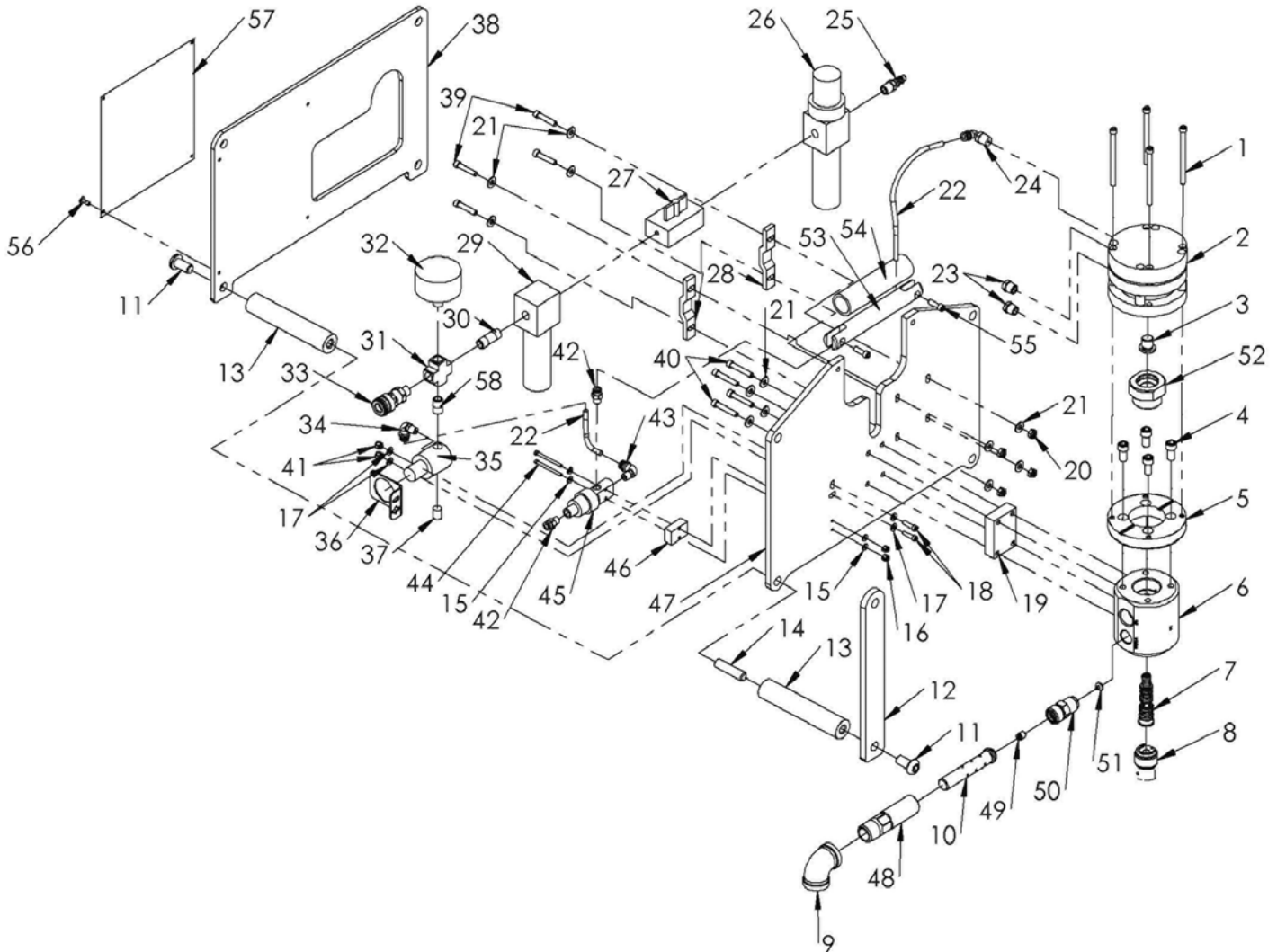
Configured for use with Intensifier type pumps and for **single or multiple** gun operation. A plug is placed in the discharge orifice, preventing any water from venting through the Multi-Mode Valve. Actuation of the gun almost immediately produces desired blast pressures and flow rates.

CAUTION: NOT TO BE USED WITH PISTON TYPE PUMPS WITHOUT SPECIAL EQUIPMENT CONSIDERATIONS. CONSULT JETSTREAM OR PUMP MANUFACTURER.

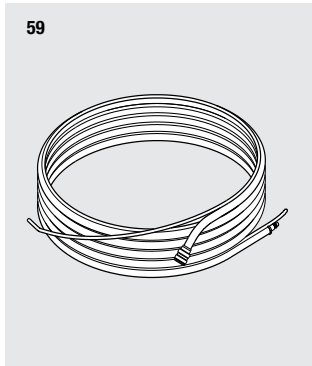
4) Custom Application Mode

The Multi-Mode Valve has the unique feature to allow it to be used as a switching valve in automation type systems. Special components are required, and Jetstream should be contacted to discuss your application.

**TUMBLE BOX
MULTI-MODE VALVE**



**PUMP
ACCESSORIES**



PUMP ACCESSORIES

40,000 PSI



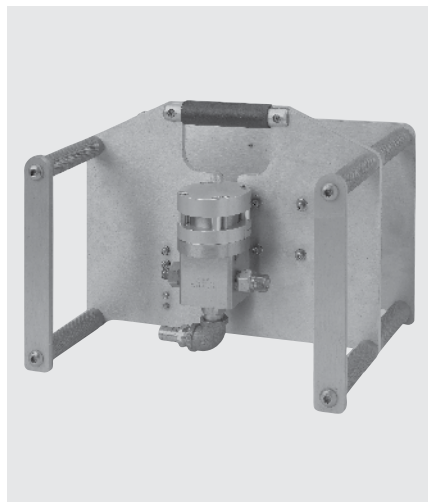
PART BREAKDOWN

PUMP ACCESSORIES

ITEM	PART NO.	DESCRIPTION
1	28222	Capscrew
2	54343	Air Cylinder Kit
3	53869	Pusher
4	27714	Capscrew
5	53853	Air Cylinder Mounting Plate
6	53852	Body
7	54014	Cartridge
8	53868	Cartridge Plug
9	27645	Elbow
10	54404	Diffuser
11	28436	Capscrew
12	27725	Guard
13	53747	Guard Rod
14	27763	Stud
15	27674	Washer
16	27673	Nut
17	28387	Washer
18	27716	Capscrew
19	53788	Mounting Block
20	25314	Nut
21	26709	Washer
22	27740	Tubing (Order in Feet)
23	28364	Exhaust Muffler
24	28367	Elbow
25	28223	Male Fitting
26	28373	Air Filter/Regulator
27	28372	Lockout Valve
28	28376	Mounting Bracket
29	28374	Lubricator
30	28370	Nipple
31	28134	Cross
32	28361	Gauge
33	28366	Female Fitting

ITEM	PART NO.	DESCRIPTION
34	28365	Elbow
35	28363	Regulator
36	28368	Bracket
37	28369	Plug
38	28331	Cover Plate
39	26126	Capscrew
40	27680	Capscrew
41	28437	Nut
42	27732	Tubing Adapter
43	28365	Elbow
44	27671	Capscrew
45	27670	Pilot Valve
46	53789	Mounting Block
47	27724	Mounting Plate
48	53864	Diffuser Housing
49	53502	UHP Nozzle Retainer
50	53863	Nozzle Holder
51	54059	Button Seal
52	54233	Cartridge Plug
53	53749	Handle
54	27193	Handle Grip
55	25206	Capscrew
56	28385	Rivet
57	28338	Warning Plate
58	28136	Nipple
59	28066	Air Control Hose
60	27749	Air Tool Oil
61*	53570	Adapter, 40K Port Male x 7/8" Type M
62*	53571	Adapter, 40K Port Male x 9/16" Type M
63**	53572	Adapter, 40K Port Male x 3/8" HP Female
64**	54056	Adapter, 40K Port Male x 9/16" HP Female

* Not Shown (used with model 53905).
 ** Not Shown (used with model 54695).



UNLOADER VALVE FRONT VIEW



UNLOADER VALVE BACK VIEW

TUMBLE BOX UNLOADER VALVE


The Jetstream 40,000 psi Unloader Valve is a combination air-actuated high pressure control valve and air preparation unit for use in conjunction with the Jetstream Tornado Gun. The Unloader Valve controls the flow of the filtered and lubricated air and high pressure water to the gun or other appropriate device. When the gun is not engaged, the valve unloads, or “dumps” the water through a low-pressure outlet to relieve the system of high pressure.

It is designed for single gun operation and utilizes the patented Jetstream C-Series cartridge, which allows the valve to be completely rebuilt in the field in less than one minute.

Rated for 40,000 psi (2,750 bar) maximum operating pressure, the control valve features Jetstream proprietary connections specifically designed to resist wear and leakage at extreme pressures. Adapters are included to connect high pressure hoses featuring the Type M connection. High-Pressure adapters are also available (see Fittings, Section E).

- 30 second field replaceable cartridge design for minimal downtime.
- Cartridge valve and seat machined from hardened stainless steel and coated for longer wear life.
- Cartridge is hydraulically biased to ensure positive disengagement, ensuring maximum safety.
- Air supply pressure regulated to actuation cylinder; this constant pressure eliminates damage to valve caused by excessive activation forces.
- Custom designed actuation air cylinder for durability under severe conditions.
- Regulator, filter, and oiler components protected against abuse and damage.
- Ergonomically designed for ease of use and transportation.
- Heavy duty, light weight aluminum frame (3/8" plate).

PART NO.	DIMENSIONS						CONNECTION TYPE	MAX. FLOW RATE		MAX. OPERATING PRESSURE		AIR REQUIREMENTS					
	WIDTH		DEPTH		HEIGHT							INLET AIR PRESSURE				LUBRICATOR OIL	
	in	mm	in	mm	in	mm						MIN.		MAX.			
						psi	bar	psi	bar	psi	bar						
54325	17.1	435	12.8	329	12.9	324	Type M Male	6.8	25.7	40,000	2,750	70	4.8	125	8.6	SAE 10W	



REPLACEMENT CARTRIDGE

Cartridge made from hardened steel and allows for a complete valve rebuild quickly and easily.

Part No. 53475

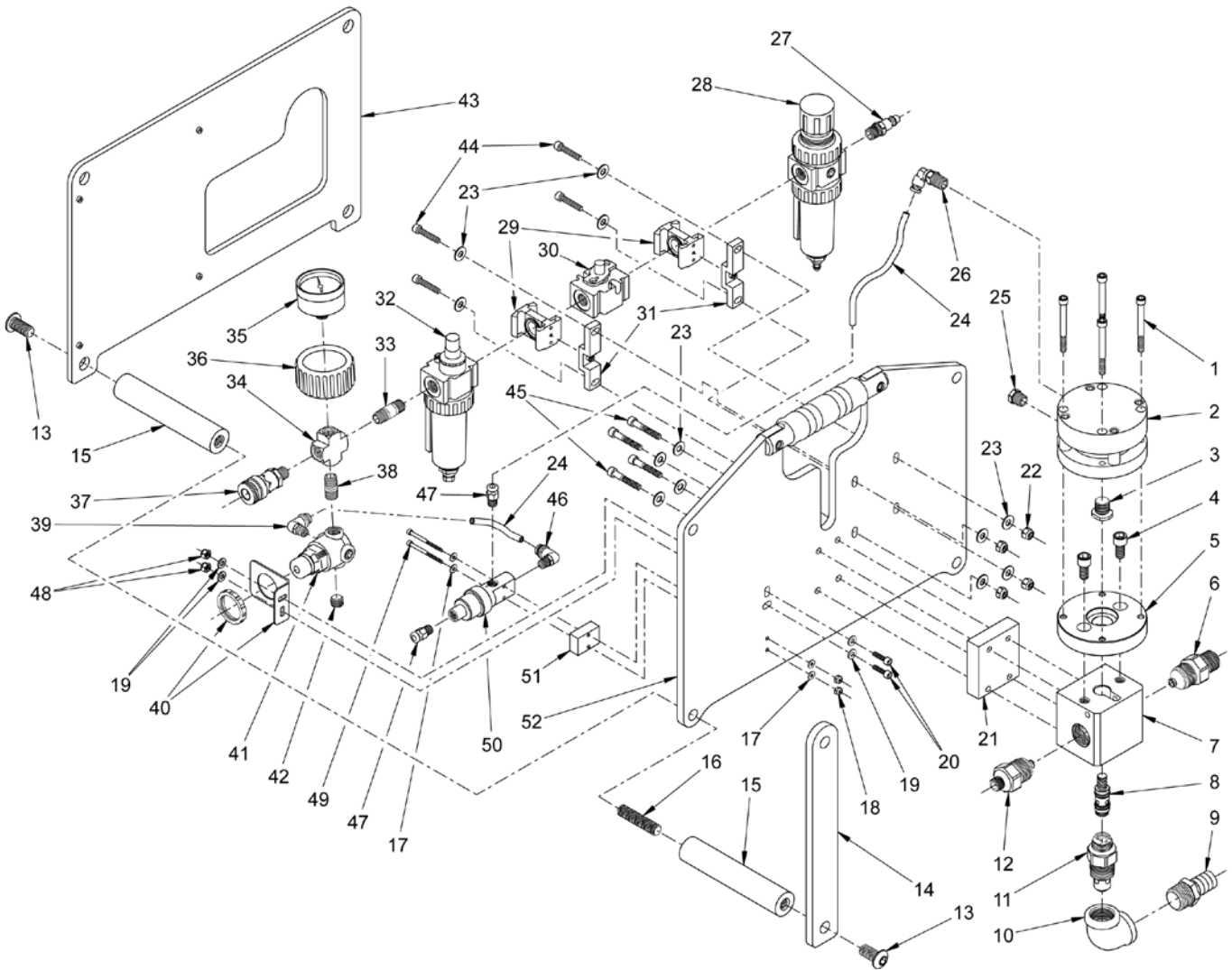
PUMP ACCESSORIES

40,000 PSI



TUMBLE BOX UNLOADER VALVE

PUMP
ACCESSORIES



PUMP ACCESSORIES

40,000 PSI



PART BREAKDOWN

ITEM	PART NO.	DESCRIPTION
1	28399	Capscrew
2	54342	Air Cylinder Kit
3	53424	Pusher
4	27714	Capscrew
5	54321	Air Cylinder Mounting Plate
6	53570	Adapter, 40K Port Male x 7/8" Type M
7	53546	Body
8	53475	Cartridge
9	25796	Hose Fitting
10	27645	Elbow
11	53753	Diffuser
12	53571	Adapter, 40K Port Male x 9/16" Type M
13	28436	Capscrew
14	27725	Guard
15	53747	Guard Rod
16	27763	Stud
17	27674	Washer
18	27673	Nut
19	28387	Washer
20	27716	Capscrew
21	53788	Mounting Block
22	25314	Nut
23	26709	Washer
24	27740	Tubing (Order in Feet)
25	28364	Exhaust Muffler
26	28367	Elbow
27	28223	Male Quick Disconnect

ITEM	PART NO.	DESCRIPTION
28	28373	Air Filter/Regulator
29	28376	Body Connector
30	28372	Lockout Valve
31	28375	Mounting Bracket
32	28374	Air Lubricator
33	28370	Nipple
34	28134	Cross
35	28361	Gauge (0 - 60,000psi)
36	28362	Gauge Boot
37	28366	Female Quick Disconnect
38	28136	Nipple
39	28365	Elbow
40	28368	Mounting Bracket and Nut
41	28363	Regulator
42	28369	Plug
43	28331	Cover Plate
44	26126	Capscrew
45	27680	Capscrew
46	28365	Elbow
47	27732	Tubing Adapter
48	28437	Nut
49	27671	Capscrew
50	27670	Pilot Valve
51	53789	Mounting Block
52	27724	Mounting Plate
53	27749	Air Tool Oil
54	28066	Air Control Hose

PUMP ACCESSORIES

PUMP ACCESSORIES

40,000 PSI



PUMP ACCESSORIES



ELECTRONIC

ELECTRONIC HYDRO-THROTTLE THROTTLE CONTROLS (FOR DUMP SYSTEMS)

The Jetstream hydro-throttle enables the operator to reduce the engine to idle speed and relieve the system of high pressure when the dump gun trigger (or foot pedal) is released—saving water and fuel, while reducing wear on the engine and pump.

- Electronic hydro-throttle assembly is standard on current models and includes the actuator assembly, cartridge and electrical plug to connect to the engine control panel
- Replaceable cartridge for fast field service or conversion to another pressure range

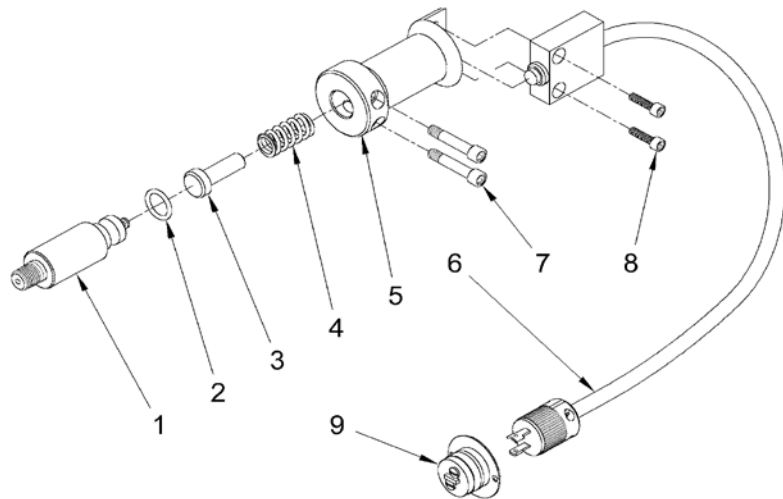
TYPE	PART NO.	LENGTH (LESS CORD)		HOSE CONNECTION THREAD	DIAMETER		WEIGHT		MAX. OPERATING PRESSURE	
		in	mm		in	mm	lbs	kg	psi	bar
ELECTRONIC	J56373	7.2	182	9/16" Type M Female	1.75	44.5	1.6	0.7	40,000	2,750

REPLACEMENT CARTRIDGE



Diverter valve utilizes a cartridge, to completely rebuild the dump valve in about 30 seconds.

Part No. 53609



Related Items

- 27731-0063939** Hose (Required)
- 27532** Cartridge O-Ring
- 53608** Cartridge Backup Ring
- 53888** Button Seal
- 53671** Adapter, 9/16" Type M Male x Pump Discharge Male
- 59675** Coupling, 9/16" Type M female (requires button seal)

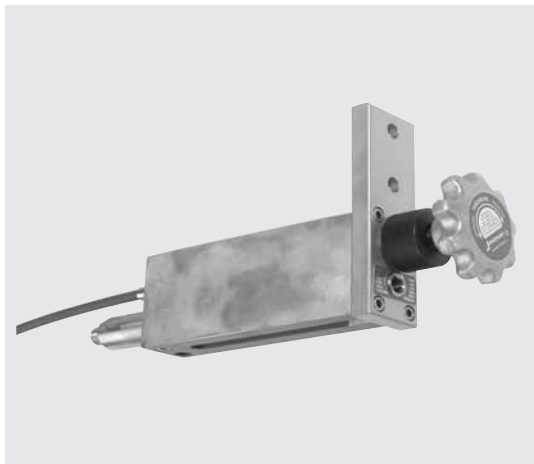
For connection types, see Fittings, Section E.

PART BREAKDOWN

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	53609	Cartridge	6	53446	Corded Switch (<2007)
2	26426	O-Ring	6	56551	Corded Switch (2007-9/2008)
3	53444	Plunger		57970	Corded Switch (>9/2008)
4	25279	Spring	7	53447	Capscrew
5	53443	Body	8	27716	Capscrew
			9	27494	Receptacle

PUMP ACCESSORIES

40,000 PSI



MECHANICAL HYDRO-THROTTLE THROTTLE CONTROLS (FOR DUMP SYSTEMS)

The Jetstream hydro-throttle enables the operator to reduce the engine to idle speed and relieve the system of high pressure when the dump gun trigger (or foot pedal) is released—saving water and fuel, while reducing wear on the engine and pump.

- Mechanical hydro-throttle parts can be purchased and include the control unit, cartridge and control cable
- Replaceable cartridge for fast field service or conversion to another pressure range

MECHANICAL

TYPE	PART NO.	CONTROL CABLE LENGTH		HOSE CONNECTION THREAD	CONTROL UNIT SIZE (L x W x H)		WEIGHT		MAX. OPERATING PRESSURE	
		ft	m		in	mm	lbs	kg	psi	bar
MECHANICAL	54595	2	0.6	9/16" Type M Female	11.7 x 1.75 x 5.6	297 x 44.5 x 142	4	1.8	40,000	2,750
	54600	5	1.5							

REPLACEMENT CARTRIDGE



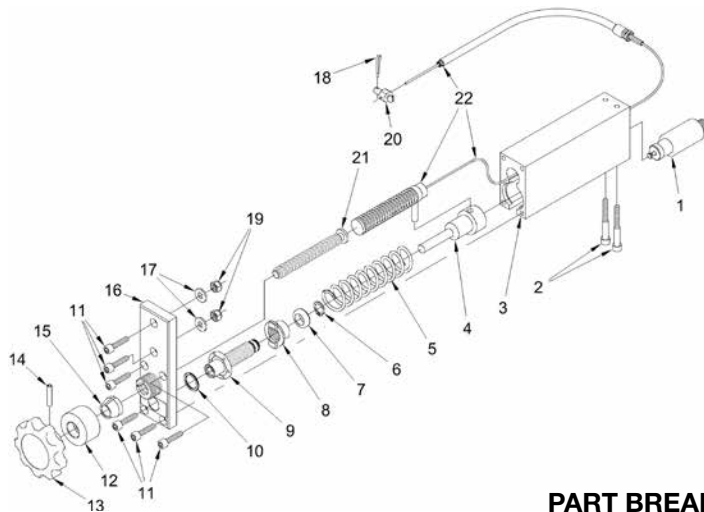
Diverter valve utilizes a cartridge, to completely rebuild the dump valve in about 30 seconds.

Part No. 53609

Related Items

- 27731-0063939** Hose (Required)
- 27532** Cartridge O-Ring
- 53608** Cartridge Backup Ring
- 53888** Button Seal
- 53671** Adapter, 9/16" Type M Male x Pump Discharge Male
- 59675** Coupling, 9/16" Type M female (requires button seal)

For connection types, see Fittings, Section E.



PART BREAKDOWN

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	53609	Cartridge	12	51887	Friction Adjustment Nut
2-21	52894	Throttle Control Unit	13	51879	Hand Knob
2	26690	Capscrew	14	26688	Pin
3	51877	Body	15	51888	Friction Ring
4	54293	Spring Retainer	16	51908	Face Plate
5	26682	Return Spring	17	25247	Washer
6	28274	Retaining Spring	18	26468	Cotter Pin
7	54272	Adjuster Stop Ring	19	25314	Nut
8	54269	Pressure Adjustment Nut	20	26728	Pivot Terminal
9	54268	Pressure Adjustment Screw	21	51885	Adjustment Screw
10	54271	Thrust Washer	22	51903A	5' (1.5m) Ctrl Cable
11	26689	Capscrew		51903	2' (0.6m) Ctrl Cable

PUMP ACCESSORIES

40,000 PSI



STANDARD FILTERS

Available for a range of flows to meet all needs, Jetstream filters provide the necessary protection to even the most versatile waterblast system. The severe condition of 40,000 psi pumps require a higher degree of protection, and it is recommended that water is filtered to 10 microns by a primary filter and then by a secondary 1 micron filter before entering the pump.

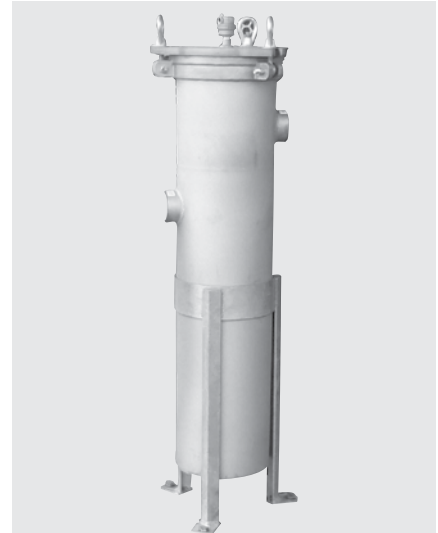
PUMP ACCESSORIES



GUARDIAN SYSTEM



PART NO. 61607



PART NO. J70611

PART NO.	INLET/OUTLET DRAIN CONNECTIONS	MAX. FLOW RATE		DIMENSIONS				WEIGHT		MAX. OPERATING PRESSURE	
				DIAMETER		HEIGHT					
		gpm	lpm	in	mm	in	mm	lb	kg	psi	bar
61607	1 1/2" NPT	40	150	4.0	102	20	510	7.5	3.4	150	10
J70611	2" NPT	200	750	8.5	216	36	910	40	18	150	10
58368	1 1/2" / 3" / 2" NPT	-	-	18 5/16" deep x 47 5/8" wide x 50" tall				185	83.9	100	6.8



FILTER BAGS

FILTER STYLE	BAG DIAMETER		BAG LENGTH		NOMINAL FILTRATION BAGS (MICRON)				
	in	mm	in	mm	5 micron	10 micron	25 micron	50 micron	75 micron
Guardian	7	180	42	1070	71254	J56204	J70917	-	-
61607	7	180	32	810	27688	26765	26766	27497	-
J70610	4	100	14	360	28806	26916	25117	25866	25118

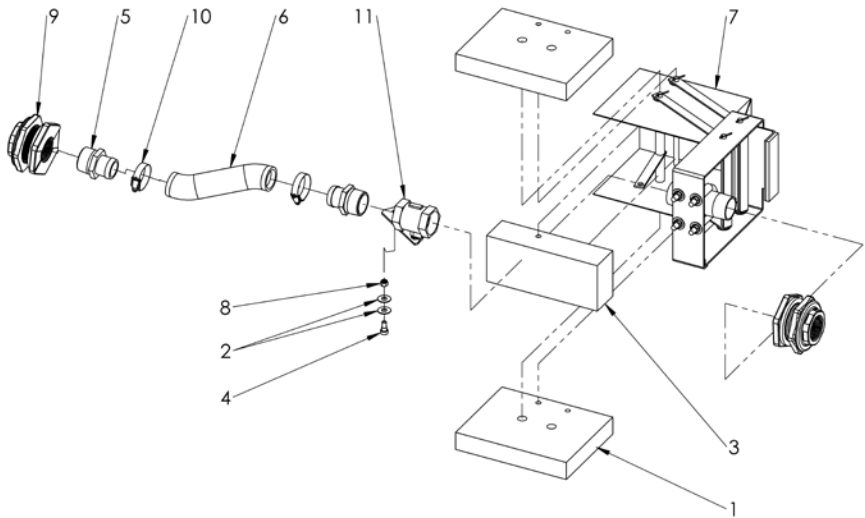
Related Items

- 58414** Retrofit Float Assy for non-Guardian Water Tanks
- 28519** Low Water Level Switch
- 28480MOD** Float Valve Modified (plastic floats)



GUARDIAN TANK FILL VALVE ASSEMBLY

The new durable design for the fill valve assembly is constructed of stainless steel to withstand the rigor of transport. This valve assembly is used on all Jetstream units and is built to supply water for varying pressures.

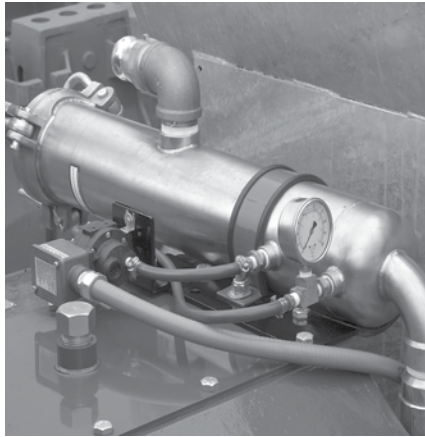


PART BREAKDOWN

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	57853	Float Segment, Fill Valve	7	58305	Frame Ay, Fill Valve
2	71202	Washer	8	27698	Nut
3	58044	Float Segment	9	29374	Fitting, Bulkhead
4	57856	Screw, Shldr	10	25221	Clamp, Hose
5	58002	Nipple, King	11	58314	Valve Ay, Modified
6	58000	Hose			

PUMP ACCESSORIES

40,000 PSI



PART NO. J56453

FILTER PART NO.	FILTER CARTRIDGES*	
	1 micron	3 micron
27503	27504	27505

*Pleated cartridges available:
 1 micron J70260
 1 micron absolute J70259
 5 micron J70261

POLISHING FILTER PACKAGE

A recommended accessory for any 40,000 psi UNx bareshaft pump or fluid end, this package provides the necessary protection to prevent damage to the pump caused by poorly filtered or insufficient water supply. Intended for use as a secondary filter only, not as a substitute for a primary filter.

- Secondary filter assembly can be mounted directly to all Jetstream and some non-Jetstream brand power frames (as shown) or mounted vertically, using the stand that is included (not shown).
- Differential Pressure Switch detects clogged filter elements and shuts down the unit to prevent cavitation (Sold separately; **Part No. 28112**).
- Cam-Lok connections for easy conversions to and from fluid ends with lower pressure ranges.

A Differential Pressure Switch Package can be purchased separately and added to existing filters. It is included in J56453 filter package. (Includes switch, hoses, fittings, wiring, and mounting hardware.)

Part No. 56467

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
27796	Lid O-Ring	27503-3	Clevis Pin
27503-4	Cartridge Retaining Bolt	71490	Center Post
27503-5	Cartridge Retaining Washer	58318	Spring Cup Assembly
27503-1	Swing Bolt	58317	O-Ring
27503-2	Eye Nut		



PRESSURE GAUGE

- 6" high visibility face with laminated safety glass dial cover
- Glycerin-filled for protection against pulsation and vibration
- Blow-out back panel pressure relief in the event of Bourdon tube failure for maximum safety
- Pointer zero adjustment

PART NO.	GAUGE TYPE	INLET CONNECTION*	RANGE (PSI)	MAX. WORKING PRESSURE	
				psi	bar
27488	psi	9/16" HP Male	0 - 60,000	40,000	2,750
29820	psi/bar	9/16" HP Male	0 - 60,000	40,000	2,750
61628**	psi	9/16" HP Male	0 - 60,000	40,000	2,750

*Anti-vibration gland set not included. **Certified & Calibrated

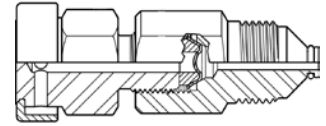


RUPTURE DISC HOLDERS

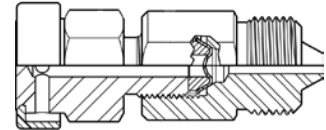
For protection from dangerous over-pressurization, rupture discs function in a waterblast system similar to the function of fuses in an electrical circuit. When the system pressure exceeds that of the burst disc, the disc fails and allows water to flow out of the holder's cap, relieving the system of high pressure.

- May be used as primary and/or secondary relief device
- Tamper-resistant design
- Discs are quickly and easily replaceable

NOTE: Burst disc not included with assembly.



PART NO. 53505



PART NO. 54540

PUMP ACCESSORIES

PART NO.	CONNECTION TYPE	OVERALL LENGTH		DISC BLOW OUT DIAMETER		FLATS		MAX. WORKING PRESSURE	
		in	mm	in	mm	in	mm	psi	bar
54540	9/16" HP Ports	3.56	90.4	.25	6.4	1.25	31.8	40,000	2,750
53505	Jetstream 40K Port	3.70	94.0	.25	6.4	1.25	31.8	40,000	2,750

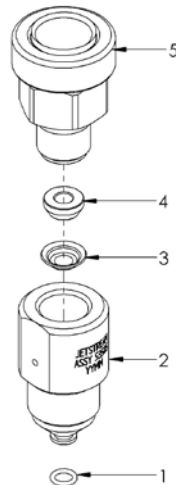
Making a Disc Selection:

For **primary** relief devices, select disc with burst pressure of approximately 1.2 times desired operating pressure.

Example: For operating pressure of 40,000 psi, desired burst pressure is 40,000 x 1.2 = 48,000 psi. Select 50,000 psi Burst Disc, **Part No. 27484**. For **secondary** relief devices, select disc with burst pressure of approximately 1.4 times desired operating pressure.

BURST DISC CHART

PART NO.	BURST DISC PRESSURE	
	psi	bar
28575	35,000	2,414
28576	40,000	2,750
28615	45,000	3,103
27484	50,000	3,448
27485	56,000	3,860



PART BREAKDOWN

ITEM	PART NO.	DESCRIPTION
1	27502	O-Ring
2	53576	Base, Jetstream 40K Port Male
	54483	Base, 9/16" High Pressure Male
3	See Burst Disc Chart	Rupture Disc
4	53578	Hold-Down Ring
5	53579	Cap



HOSES



FLEX LANCES

HOSES & LANCES

Jetstream provides a full arrangement of hoses and flex lances for ultra high pressure waterblasting. The hoses and lances are designed to be durable and reliable for any 40,000 psi application. A large selection of 25', 35' and 50' hoses and lances are kept in inventory, while a wide variety of lengths can be ordered.

All hoses and flex lances are constructed of a plastic core reinforced with high tensile steel wire and enclosed in a durable, flexible thermoplastic jacket. The smooth plastic core minimizes pressure loss and offers maximum resistance to damage caused by aging, moisture absorption and changing environmental factors. As an added safety benefit, all supply hoses with the abrasion cover spiral will be colored orange. Beginning in 2015, all flex lances supplied will be orange from end to end.

A key element of the thermoplastic supply hose is the heavy-duty abrasion cover. This cover prevents excess damage caused by vibration and movement of the hose on rough or uneven surfaces when connecting from the pump to an intermediary high pressure tool, such as a Tumble Box.

The flex lances are uncovered lances used for the cleaning of small diameter tubes found in heat exchangers, condensers and boilers. The use of smaller flex lances allows for easy passage through bends due to great flexibility and minimal bend radius.

HOW TO ORDER JETSTREAM HOSES & FLEX LANCES EXAMPLE: 28460-AAABCCX

- 1

Specify series number

Insert dash after series number.

28460

- 2

Specify desired length in feet (000 – 999)

Example: 050 for a 50 ft. long hose.

AAA

- 3

Specify end fitting codes (BB & CC)

For a hose or lance requiring two different end fittings, list the codes in numerical order when creating the part number.

BB
CC

- 4

Specify cover options code (X)

Leave blank if no cover is desired.

Cover Option Codes

 - 1 Abrasion Cover Guard
 - 2 Burst Shield Guard
 - 3 Tornado Gun Shield (See 27731-02539393)

X

● Available

CONNECTION SIZE & TYPE	FITTING CODE	HOSE ID (MM)			
		4mm	5mm	6mm	8mm
1/4" HP Male	31	●	●		
3/8" HP Male	32	●	●		
9/16" HP Male	33		●	●	●
9/16" Type M Female	39	●	●	●	
7/8" Type M Female	41				●
1 1/8" Type M Female	43				●

End Fitting Codes*

*See Pages I-4 to I-6 for a description of each connection type.

HOSES & LANCES



HOSES

General purpose hoses are used to distribute high pressure water throughout the system.

- Safety whips are six foot hoses that are connected between a waterblast control gun and the rest of the hoses. These are intended for periodic replacement to ensure that the hose near the gun operator's body is always in good condition.
- Hydro-Throttle hoses are connected from the fluid end to the hydraulic throttle control.

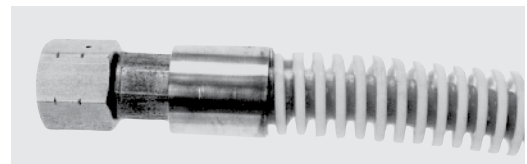
PART NO.	END FITTING CONNECTION*	LENGTH		INSIDE DIAMETER		MAX. OPERATING PRESSURE		MIN. BEND RADIUS	
		ft	m	in	mm	psi	bar	in	mm
27731-02539391	9/16" Type M Female	25	7.6	.20	5	40,600	2,800	8.7	220
27731-05039391	9/16" Type M Female	50	15.2	.20	5	40,600	2,800	8.7	220
29172-02539391	9/16" Type M Female	25	7.6	.20	5	40,000	2,750	9.8	249
29172-05039391	9/16" Type M Female	50	15.2	.20	5	40,000	2,750	9.8	249
70346-02539391	9/16" Type M Female	25	7.6	.23	6	40,600	2,800	9.8	250
70346-05039391	9/16" Type M Female	50	15.2	.23	6	40,600	2,800	9.8	250
59469-02541411	7/8" Type M Female	25	7.6	.32	8	40,000	2,750	11.8	300
59469-05041411	7/8" Type M Female	50	15.2	.32	8	40,000	2,750	11.8	300
59469-02533331	9/16" HP Male	25	7.6	.32	8	40,000	2,750	11.8	300
59469-05033331	9/16" HP Male	50	15.2	.32	8	40,000	2,750	11.8	300
27524-02541411	7/8" Type M Female	25	7.6	.32	8	36,250	2,500	10.3	260
27524-05041411	7/8" Type M Female	50	15.2	.32	8	36,250	2,500	10.3	260
28612-02541411	7/8" Type M Female	25	7.6	.32	8	40,580	2,799	9.8	250
28612-05041411	7/8" Type M Female	50	15.2	.32	8	40,580	2,799	9.8	250
28612-02533331	9/16" HP Male	25	7.6	.32	8	40,580	2,799	9.8	250
28612-05033331	9/16" HP Male	50	15.2	.32	8	40,580	2,799	9.8	250
27731-00639392	9/16" Type M Female	6	1.8	.20	5	40,600	2,800	8.7	220
59469-00641412	7/8" Type M Female	6	1.8	.32	8	40,000	2,750	11.8	300
27524-00641412	7/8" Type M Female	6	1.8	.32	8	36,250	2,500	10.3	260

*See Page D-3—D-4 for end fitting dimensions and cover descriptions. See Pages I-4 to I-6 for a description of each connection type.

HOSE COVER OPTIONS

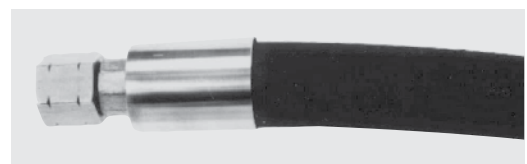
Abrasion Cover Guard (Code 1)

Constructed of a clear PVC or heavy-duty vinyl and reinforced with a rigid helix coil. The Abrasion Cover Guard helps protect the hose from excessive wear due to scuffing or rough surfaces, and also provides additional protection from external objects.



Burst Shield Guard (Code 2)

Constructed of steel wire reinforced heavy-duty synthetic rubber. The Burst Shield Guard helps protect the user and/or surrounding areas from hose failures.



HOSES & LANCES

HOSES & LANCES

40,000 PSI



FLEX LANCES

Flex Lances are uncovered flexible hoses used for the cleaning of small diameter tubes such as those found in:

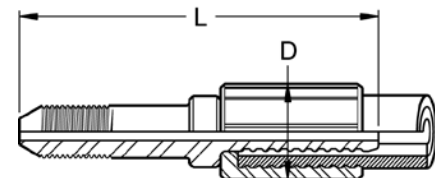
- Heat Exchangers
- Condensers
- Boilers

PART NO.	END FITTING CONNECTION (INLET SIDE)*	END FITTING CONNECTION (NOZZLE SIDE)*	LENGTH		INSIDE DIAMETER		MAX. OUTSIDE DIAMETER**		MAX. OPERATING PRESSURE		MIN. BEND RADIUS	
			ft	m	in	mm	in	mm	psi	bar	in	mm
59736-0503139	9/16" Type M Female	1/4" HP Male	50	15.2	.12	3	.60	15.3	40,600	2,800	5.91	150
28460-0503131	1/4" HP Male	1/4" HP Male	50	15.2	.16	4	.67	17.1	40,600	2,800	6.9	175
28460-0253239	9/16" Type M Female	3/8" HP Male	25	7.6	.16	4	.67	17.1	40,600	2,800	6.9	175
28460-0353239	9/16" Type M Female	3/8" HP Male	35	10.7	.16	4	.67	17.1	40,600	2,800	6.9	175
28460-0503239	9/16" Type M Female	3/8" HP Male	50	15.2	.16	4	.67	17.1	40,600	2,800	6.9	175
28460-0253232	3/8" HP Male	3/8" HP Male	25	7.6	.16	4	.67	17.1	40,600	2,800	6.9	175
28460-0353232	3/8" HP Male	3/8" HP Male	35	10.7	.16	4	.67	17.1	40,600	2,800	6.9	175
28460-0503232	3/8" HP Male	3/8" HP Male	50	15.2	.16	4	.67	17.1	40,600	2,800	6.9	175
28082-0033939	9/16" Type M Female	9/16" Type M Female	3	0.91	.20	5	.78	19.7	40,600	2,800	8.7	220
27731-0253339	9/16" Type M Female	9/16" HP Male	25	7.6	.20	5	.78	19.7	40,600	2,800	8.7	220
27731-0353339	9/16" Type M Female	9/16" HP Male	35	10.7	.20	5	.78	19.7	40,600	2,800	8.7	220
27731-0503339	9/16" Type M Female	9/16" HP Male	50	15.2	.20	5	.78	19.7	40,600	2,800	8.7	220
27731-0253333	9/16" HP Male	9/16" HP Male	25	7.6	.20	5	.78	19.7	40,600	2,800	8.7	220
27731-0353333	9/16" HP Male	9/16" HP Male	35	10.7	.20	5	.78	19.7	40,600	2,800	8.7	220
27731-0503333	9/16" HP Male	9/16" HP Male	50	15.2	.20	5	.78	19.7	40,600	2,800	8.7	220
70346-0503339	9/16" Type M Female	9/16" HP Male	50	15.2	.23	6	.65	16.4	40,600	2,800	9.84	250
70346-0353339	9/16" Type M Female	9/16" HP Male	35	10.7	.23	6	.65	16.4	40,600	2,800	9.84	250

*See Pages I-4 to I-6 for a description of each connection type. ** Sleeve O.D.

END FITTINGS HIGH PRESSURE (HP)

HOSE SERIES	SIZE	L	SLEEVE OD (D)	WEAR GUARD DIAMETER	GUARD SLEEVE DIAMETER
28460	1/4"	3.31	.66	.98	.95
	3/8"	3.34	.66	.98	.95
27731	1/4"	3.43	.73	1.00	1.07
	3/8"	3.90	.73	1.00	1.07
	9/16"	3.90	.73	1.00	1.07
27524	3/8"	3.78	.96	1.27	1.34
	9/16"	4.25	.96	1.27	1.34
59469	3/8"	3.78	1.09	1.40	1.47
	9/16"	4.25	1.09	1.40	1.47
28612	9/16"	5.13	1.10	1.27	1.49
70346	9/16"	2.96	.88	1.00	1.07



HOSES & LANCES

HOSES & LANCES

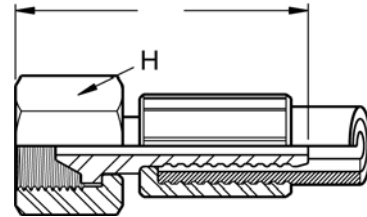
40,000 PSI



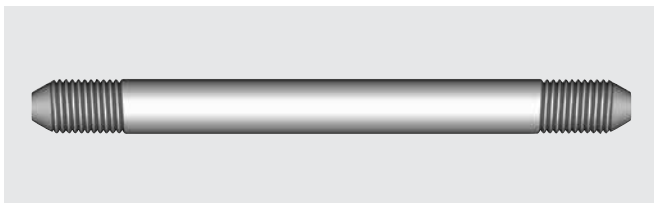
END FITTINGS

TYPE M

HOSE SERIES	SIZE	L	SLEEVE OD (D)	WEAR GUARD DIAMETER	GUARD SLEEVE DIAMETER
28460	9/16"	2.50	.75	.98	.95
27731	9/16"	2.96	.88	1.00	1.07
70346	9/16"	2.96	.88	1.00	1.07
27524	7/8"	3.65	1.19	1.27	1.34
59469	7/8"	3.65	1.19	1.40	1.47
28612	7/8"	4.43	1.25	1.27	1.49
29172	9/16"	4.65	1.00	1.24	1.50



HOSES & LANCES



RIGID LANCES

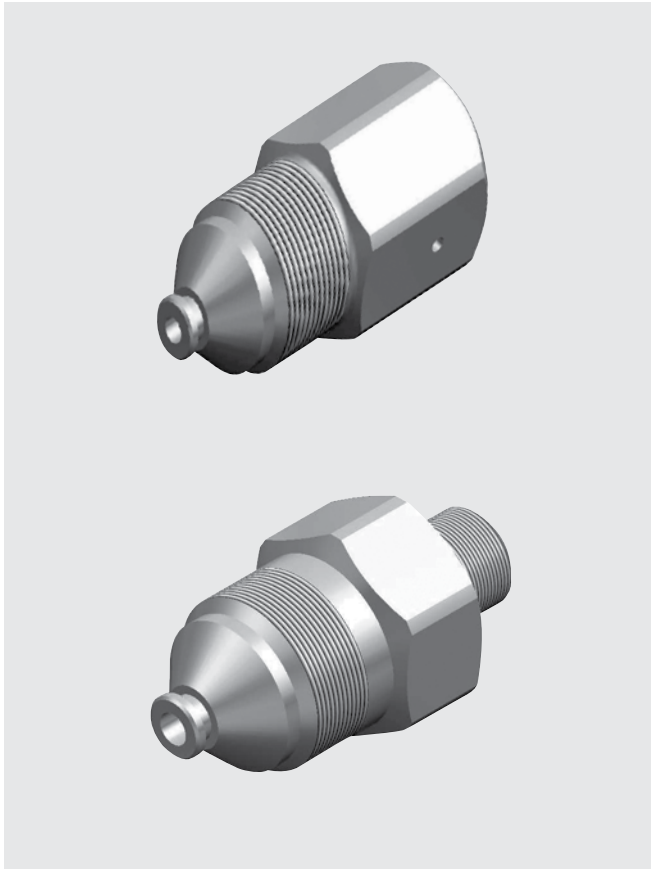
Made from high tensile strength cold drawn stainless steel. Typically used in the following applications:

- Heat exchanger tube cleaning.
- Small diameter tube and pipe cleaning.

PART NO.	CONNECTION TYPE		OUTSIDE DIAMETER		INSIDE DIAMETER		MAX. PRESSURE		LENGTH
	CONNECTION 1	CONNECTION 2	in	mm	in	mm	psi	bar	ft
53831-XX	1/4" HP LH	1/4" HP LH	.245	6.22	.083	2.11	60,000	4,138	02 - 30
54364-XX	1/4" HP RH	1/4" HP RH	.245	6.22	.083	2.11	60,000	4,138	02 - 30
54554-XX	1/4" HP LH	1/4" HP RH	.245	6.22	.083	2.11	60,000	4,138	02 - 25
54224-XX	3/8" HP LH	3/8" HP LH	.368	9.35	.125	3.18	60,000	4,138	02 - 30
54225-XX	3/8" HP RH	3/8" HP RH	.368	9.35	.125	3.18	60,000	4,138	02 - 35
54556-XX	3/8" HP LH	3/8" HP RH	.368	9.35	.125	3.18	60,000	4,138	02 - 25
23-54556-30	3/8" HP LH	3/8" HP RH	.368	9.35	.125	3.18	60,000	4,138	30
54226-XX	9/16" HP LH	9/16" HP LH	.553	14.05	.188	4.78	60,000	4,138	02 - 30
54227-XX	9/16" HP RH	9/16" HP RH	.553	14.05	.188	4.78	60,000	4,138	02 - 30
54557-XX	9/16" HP LH	9/16" HP RH	.553	14.05	.188	4.78	60,000	4,138	02 - 30
54228-XX	9/16" HP LH	9/16" HP LH	.553	14.05	.250	6.35	40,000	2,758	02 - 30
54229-XX	9/16" HP RH	9/16" HP RH	.553	14.05	.250	6.35	40,000	2,758	02 - 30
54558-XX	9/16" HP LH	9/16" HP RH	.553	14.05	.250	6.35	40,000	2,758	02 - 25
23-54558-30	9/16" HP LH	9/16" HP RH	.553	14.05	.250	6.35	40,000	2,758	30

FITTINGS

Jetstream offers a wide variety of fittings with various connection types to fit your 40,000 psi application needs. The standard connection types, Type M, HP lance and button seals, are available in standard thread sizes. A benefit that Jetstream brings to the fittings realm was the invention of our proprietary 40K Port and 40K Pump Discharge fittings. These two connectors were specially designed to help prevent leakage and wear.



FITTINGS

THREAD LUBRICANTS

Thread Lubricants prevent threaded connections from galling together or seizing up.



Part No. 27721
Blue Goop Thread Lubricant
2 oz. Tube



Part No. 61647
TS-74 Yellow Thread Lubricant
12 oz. Can

Part No. 61553
Not shown—6 oz. Tube



Part No. 28197
Nickel-Based Anti-Seize
1 LB. Brush Top Can

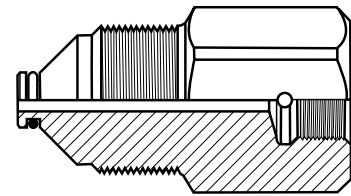
FITTINGS

40,000 PSI



MALE PORT TO TYPE M FEMALE ADAPTER

PART NO.	CONNECTION TYPE	MAX. OPERATING PRESSURE	
		psi	bar
59674	9/16" TYPE M Female	40,000	2,750

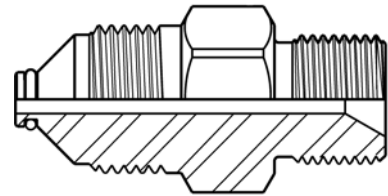


Replacement Part

27502 O-Ring

MALE PORT TO TYPE M MALE ADAPTERS

PART NO.	CONNECTION TYPE	MAX. OPERATING PRESSURE	
		psi	bar
53571	9/16" TYPE M Male	40,000	2,750
53570	7/8" TYPE M Male	40,000	2,750

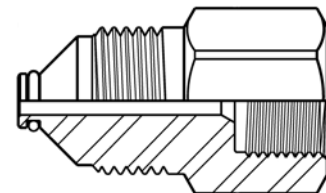


Replacement Part

27502 O-Ring

MALE PORT TO HIGH PRESSURE FEMALE ADAPTERS

PART NO.	CONNECTION TYPE	MAX. OPERATING PRESSURE	
		psi	bar
54056	3/8" HP Female	40,000	2,750
53572	9/16" HP Female	40,000	2,750

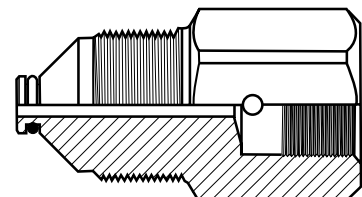


Replacement Part

27502 O-Ring

MALE PORT TO METRIC HIGH PRESSURE FEMALE ADAPTERS

PART NO.	CONNECTION TYPE	MAX. OPERATING PRESSURE	
		psi	bar
58522	M18 x 1.5 Button Seal	40,000	2,750



Replacement Part

27502 O-Ring

FITTINGS

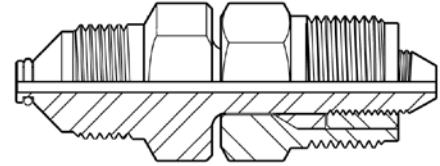
FITTINGS

40,000 PSI



MALE PORT TO HIGH PRESSURE MALE ADAPTERS

PART NO.	CONNECTION TYPE	MAX. OPERATING PRESSURE	
		psi	bar
58326	3/8" HP Male	40,000	2,750
54454	9/16" HP Male	40,000	2,750

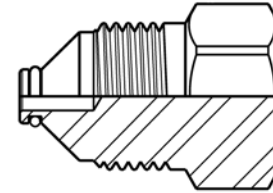


Replacement Part

27502 O-Ring

MALE PORT PLUG

PART NO.	CONNECTION TYPE	MAX. OPERATING PRESSURE	
		psi	bar
53573	Plug	40,000	2,750

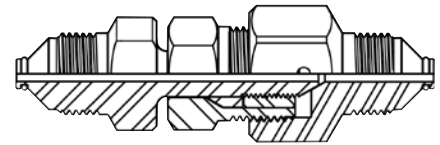


Replacement Part

27502 O-Ring

MALE PORT NIPPLE

PART NO.	CONNECTION TYPE	MAX. OPERATING PRESSURE	
		psi	bar
53735	40K Port Male	40,000	2,750



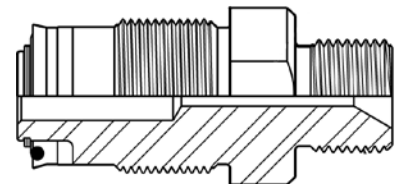
Replacement Part

27502 O-Ring

PUMP DISCHARGE MALE TO TYPE M MALE ADAPTERS

Used to connect hoses having Type M female swivel end fittings to the discharge port of the Jetstream Fluid End.

Part No.	Connection Type	MAX. OPERATING PRESSURE	
		psi	bar
53671	9/16" Type M Male	40,000	2,750
53672	7/8" Type M Male	40,000	2,750



Replacement Parts

27536 Seal Ring

53592 Seal Backup Ring

27537 Seal Retaining Ring

FITTINGS

FITTINGS

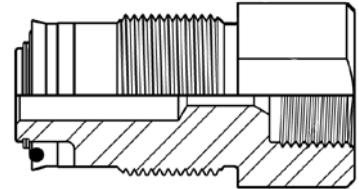
40,000 PSI



PUMP DISCHARGE MALE TO HIGH PRESSURE FEMALE ADAPTERS

Used to connect hoses having high pressure (HP) male end fittings to the discharge port of the Jetstream 40,000 psi Fluid End.

PART NO.	CONNECTION TYPE	MAX. OPERATING PRESSURE	
		psi	bar
53989	3/8" HP Female	40,000	2,750
53988	9/16" HP Female	40,000	2,750
55075	7/8" Type M Female	40,000	2,750

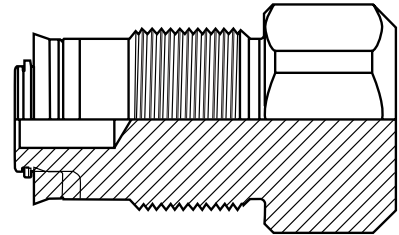


Replacement Parts

- 27536** Seal Ring
- 53592** Seal Backup Ring
- 27537** Seal Retaining Ring

PUMP DISCHARGE MALE PLUG

PART NO.	CONNECTION TYPE	MAX. OPERATING PRESSURE	
		psi	bar
53589	Plug	40,000	2,750



*Allen wrench (hex key) socket. Wrench available below.

Replacement Parts

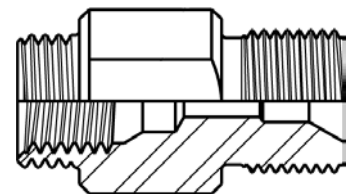
- 27536** Seal Ring
- 53592** Seal Backup Ring
- 27537** Seal Retaining Ring
- 26544** 5/8" Hex Wrench

FITTINGS

DURASAFE™ GUN TO TYPE M MALE ADAPTERS

Used to connect hoses having Type M female end fittings to the Jetstream Durasafe 40,000 psi hand-held control guns.

PART NO.	CONNECTION TYPE	MAX. OPERATING PRESSURE	
		psi	bar
53529	9/16" Type M Male	40,000	2,750
53468	7/8" Type M Male	40,000	2,750



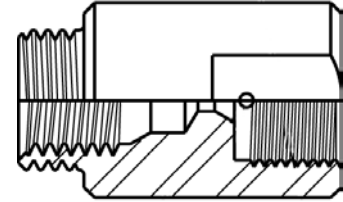
FITTINGS

40,000 PSI

DURASAFE™ GUN TO HIGH PRESSURE FEMALE ADAPTERS

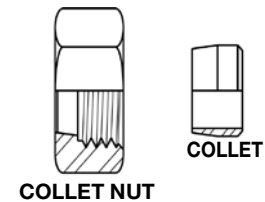
Used to connect hoses having high pressure male end fittings to the Jetstream Durasafe 40,000 psi hand-held control guns.

PART NO.	CONNECTION TYPE	MAX. OPERATING PRESSURE	
		psi	bar
53534	3/8" HP Female	40,000	2,750
54446	9/16" HP Female	40,000	2,750



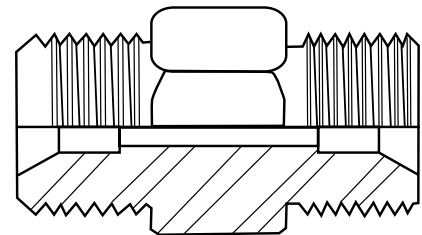
DURASAFE™ GUN RELATED ITEMS

PART NO.	DESCRIPTION
52087	9/16" Collet
52083	9/16" Collet Nut
27502	Rear Barrel O-Ring



TYPE M CONNECTORS

PART NO.	CONNECTION TYPE		MAX. OPERATING PRESSURE	
	CONNECTION 1	CONNECTION 2	psi	bar
27527*	9/16" Type M Male	9/16" Type M Male	40,000	2,750
27529	9/16" Type M Male	7/8" Type M Male	40,000	2,750
27528*	7/8" Type M Male	7/8" Type M Male	40,000	2,750
J70844	1 1/8" Type M Male	9/16" Type M Male	40,000	2,750
28669	1 1/8" Type M Male	7/8" Type M Male	40,000	2,750
28831	1 1/8" Type M Male	1 1/8" Type M Male	40,000	2,750



*Color Coded Fittings

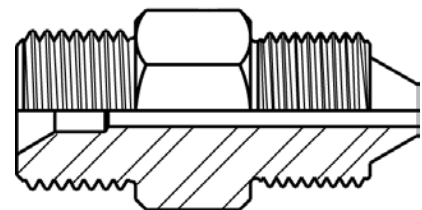
27527-O

27528-O

See page H-2 for other color coded parts.

TYPE M MALE TO HIGH PRESSURE MALE CONNECTORS

PART NO.	CONNECTION TYPE		MAX. OPERATING PRESSURE	
	CONNECTION 1	CONNECTION 2	psi	bar
29163	9/16" Type M Male	1/4" HP Male	40,000	2,750
27530	9/16" Type M Male	3/8" HP Male	40,000	2,750
27706	9/16" Type M Male	9/16" HP Male	40,000	2,750
61076	3/4" Type M Male	9/16" HP Male	40,000	2,750
28169	7/8" Type M Male	3/8" HP Male	40,000	2,750
27531	7/8" Type M Male	9/16" HP Male	40,000	2,750
28670	1 1/8" Type M Male	9/16" HP Male	40,000	2,750

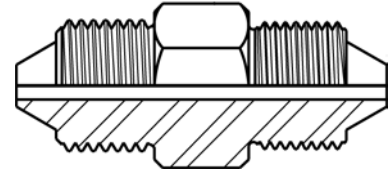


FITTINGS

40,000 PSI

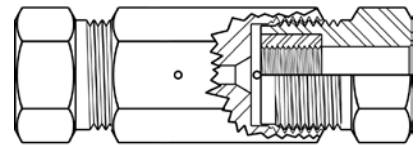
HIGH PRESSURE MALE TO MALE CONNECTORS

PART NO.	CONNECTION TYPE		MAX. OPERATING PRESSURE	
	CONNECTION 1	CONNECTION 2	psi	bar
28657	1/4" HP Male	1/4" HP Male	60,000	4,138
28658	1/4" HP Male	3/8" HP Male	60,000	4,138
28659	1/4" HP Male	9/16" HP Male	60,000	4,138
28170	3/8" HP Male	3/8" HP Male	60,000	4,138
28171	3/8" HP Male	9/16" HP Male	60,000	4,138
28172	9/16" HP Male	9/16" HP Male	60,000	4,138



HIGH PRESSURE STRAIGHT COUPLINGS

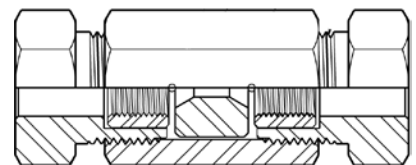
PART NO.	CONNECTION TYPE		MAX. OPERATING PRESSURE	
	CONNECTION 1	CONNECTION 2	psi	bar
28643	1/4" HP Female	1/4" HP Female	60,000	4,138
28644	1/4" HP Female	3/8" HP Female	60,000	4,138
28645	1/4" HP Female	9/16" HP Female	60,000	4,138
27965	3/8" HP Female	3/8" HP Female	60,000	4,138
28646	3/8" HP Female	9/16" HP Female	60,000	4,138
27607	9/16" HP Female	9/16" HP Female	60,000	4,138



FITTINGS

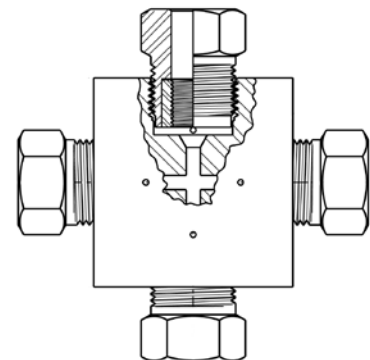
HIGH PRESSURE UNION COUPLINGS

PART NO.	CONNECTION TYPE	MAX. OPERATING PRESSURE	
		psi	bar
28647	1/4" HP Female	60,000	4,138
28648	3/8" HP Female	60,000	4,138
28649	9/16" HP Female	60,000	4,138



HIGH PRESSURE CROSSES

PART NO.	CONNECTION TYPE	MAX. OPERATING PRESSURE	
		psi	bar
28639	1/4" HP Female	60,000	4,138
28163	3/8" HP Female	60,000	4,138
27839	9/16" HP Female	60,000	4,138

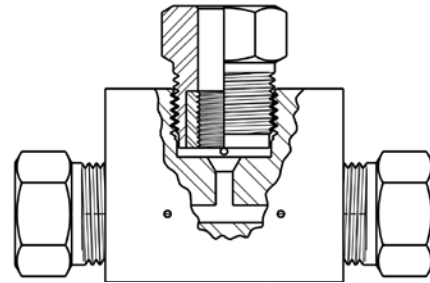


FITTINGS

40,000 PSI

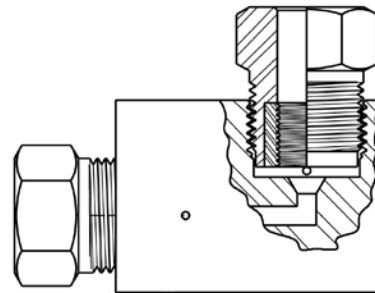
HIGH PRESSURE TEES

PART NO.	CONNECTION TYPE	MAX. WORKING PRESSURE	
		psi	bar
28640	1/4" HP Female	60,000	4,138
28164	3/8" HP Female	60,000	4,138
27838	9/16" HP Female	60,000	4,138



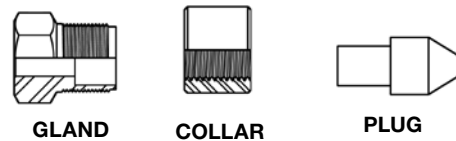
HIGH PRESSURE ELBOWS

PART NO.	CONNECTION TYPE	MAX. WORKING PRESSURE	
		psi	bar
28641	1/4" HP Female	60,000	4,138
28165	3/8" HP Female	60,000	4,138
28166	9/16" HP Female	60,000	4,138



HIGH PRESSURE GLAND NUTS, COLLARS, AND PLUGS

SIZE	GLAND	COLLAR	PLUG
1/4" HP	28650	28651	28652
3/8" HP	28176	28175	28653
9/16" HP	27520	27510	28654



GLAND

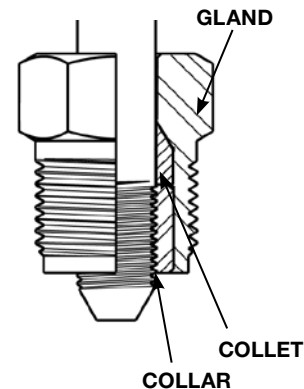
COLLAR

PLUG

ANTI-VIBRATION GLAND ASSEMBLIES

Used to reduce stress on tubing threads in conditions where bending or vibration are present. Anti-vibration gland assemblies feature a collet that clamps onto the tubing when tightened to provide extra support and strength.

SIZE	ASSEMBLY PART NO.	COLLAR REPLACEMENT
1/4" HP	28655	28651
3/8" HP	28656	28175
9/16" HP	28090	27510



FITTINGS

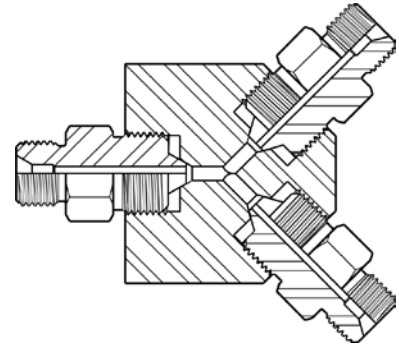
40,000 PSI



Y-ADAPTERS

Allows for the connection of two multi-mode valves to one supply source.

PART NO.	CONNECTION TYPE	MAX. WORKING PRESSURE	
		psi	bar
28672*	9/16" HP Female	60,000	4,138
54482**	7/8" Type M Male	60,000	4,138



*28672 - Block only.

**54482 shown at the right, includes adapters.

HIGH PRESSURE NIPPLES



PART NO.	CONNECTION TYPE		OUTSIDE DIAMETER		INSIDE DIAMETER		MAX. WORKING PRESSURE		LENGTH
	CONNECTION 1	CONNECTION 2	in	mm	in	mm	psi	bar	
54456-XX	1/4" HP LH	1/4" HP LH	.245	6.22	.083	2.11	60,000	4,138	2-48
54457-XX	1/4" HP LH	1/4" HP RH	.245	6.22	.083	2.11	60,000	4,138	2-48
54458-XX	1/4" HP RH	1/4" HP RH	.245	6.22	.083	2.11	60,000	4,138	2-48
54208-XX	3/8" HP LH	3/8" HP LH	.368	9.35	.125	3.18	60,000	4,138	3-48
54459-XX	3/8" HP LH	3/8" HP RH	.368	9.35	.125	3.18	60,000	4,138	3-48
54461-XX	3/8" HP RH	3/8" HP RH	.368	9.35	.125	3.18	60,000	4,138	3-48
54209-XX	9/16" HP LH	9/16" HP LH	.553	14.05	.188	4.76	60,000	4,138	3-48
54462-XX	9/16" HP LH	9/16" HP RH	.553	14.05	.188	4.76	60,000	4,138	3-48
54463-XX	9/16" HP RH	9/16" HP RH	.553	14.05	.188	4.76	60,000	4,138	3-48
54464-XX	9/16" HP LH	9/16" HP LH	.553	14.05	.250	6.35	40,000	2,750	3-48
54466-XX	9/16" HP LH	9/16" HP RH	.553	14.05	.250	6.35	40,000	2,750	3-48
54467-XX	9/16" HP RH	9/16" HP RH	.553	14.05	.250	6.35	40,000	2,750	3-48

XX – Specify length in inches, up to 48 inches. EX: 3 inches = 03 inches in length.
For lengths over 48 inches, see Rigid Lance, Page D-4

FITTINGS

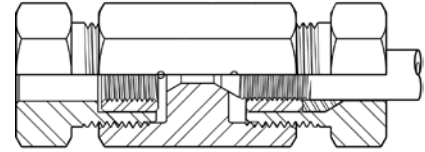
FITTINGS

40,000 PSI



HIGH PRESSURE RIGID LANCE HOLDERS

The Jetstream high pressure rigid lance holder is used to provide reduced stress on the rigid lance to flexible lance connection greatly reducing lance breakage and increasing safety. The rigid lance is inserted into the support tube and screwed into the female threaded connection.

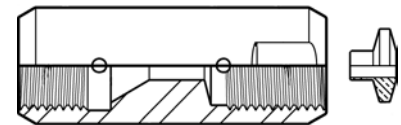
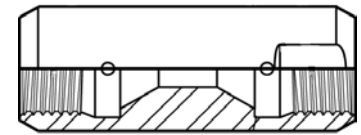


PART NO.	CONNECTION TYPE		MAX. WORKING PRESSURE	
	CONNECTION 1	CONNECTION 2	psi	bar
28202	9/16" HP	1/4" HP	60,000	4,138
28203	9/16" HP	3/8" HP	60,000	4,138
28204	9/16" HP	9/16" HP	60,000	4,138

SLIMLINE LANCE COUPLINGS

Used to connect two lances together without the use of glands and collars.

PART NO.	CONNECTION TYPE		MAX. WORKING PRESSURE	
	CONNECTION 1	CONNECTION 2	psi	bar
54468	1/4" HP Lance RH	1/4" HP Lance RH	40,000	2,750
54469	1/4" HP Lance RH	1/4" HP Lance LH	40,000	2,750
54471	1/4" HP Lance LH	1/4" HP Lance LH	40,000	2,750
54472	1/4" HP Lance RH	3/8" HP Lance RH	40,000	2,750
54473	1/4" HP Lance LH	3/8" HP Lance RH	40,000	2,750
54474	1/4" HP Lance RH	3/8" HP Lance LH	40,000	2,750
54476	1/4" HP Lance LH	3/8" HP Lance LH	40,000	2,750
53982	3/8" HP Lance RH	3/8" HP Lance RH	40,000	2,750
54198	3/8" HP Lance RH	3/8" HP Lance LH	40,000	2,750
54197	3/8" HP Lance LH	3/8" HP Lance LH	40,000	2,750
54202	3/8" HP Lance RH	9/16" HP Lance RH	40,000	2,750
54477	3/8" HP Lance LH	9/16" HP Lance RH	40,000	2,750
54201	3/8" HP Lance RH	9/16" HP Lance LH	40,000	2,750
54200	3/8" HP Lance LH	9/16" HP Lance LH	40,000	2,750
53981	9/16" HP Lance RH	9/16" HP Lance RH	40,000	2,750
54204	9/16" HP Lance RH	9/16" HP Lance LH	40,000	2,750
54203	9/16" HP Lance LH	9/16" HP Lance LH	40,000	2,750
54478	9/16" HP Lance RH	9/16" Button Seal	40,000	2,750
54479	9/16" HP Lance LH	9/16" Button Seal	40,000	2,750
54205	9/16" Button Seal	9/16" Button Seal	40,000	2,750



FITTINGS

CONTROL GUNS

AIR, HAND AND FOOT-OPERATED

Control guns are a necessity in any hand lancing application. Jetstream offers several options from manual to air-actuated, rotary control guns for 40,000 psi waterblasting.

QuadraBlast™ Air Gun

The Jetstream QuadraBlast air gun was produced with performance, durability and safety in mind. This gun enhances productivity while maintaining limited operator exposure to hazardous conditions due to the lightweight and mechanically-simplified design. For optimal performance, it is recommended to use this gun in conjunction with a rotating nozzle and Jetstream tumble box, multi-mode or unloader style.

- Air—the only source for triggering the flow of water
- Telescopic shoulder stock
- Minimal parts to maintain
- 32" (813mm) stainless steel lance barrel
- Spring-loaded safety
- Single or dual trigger available

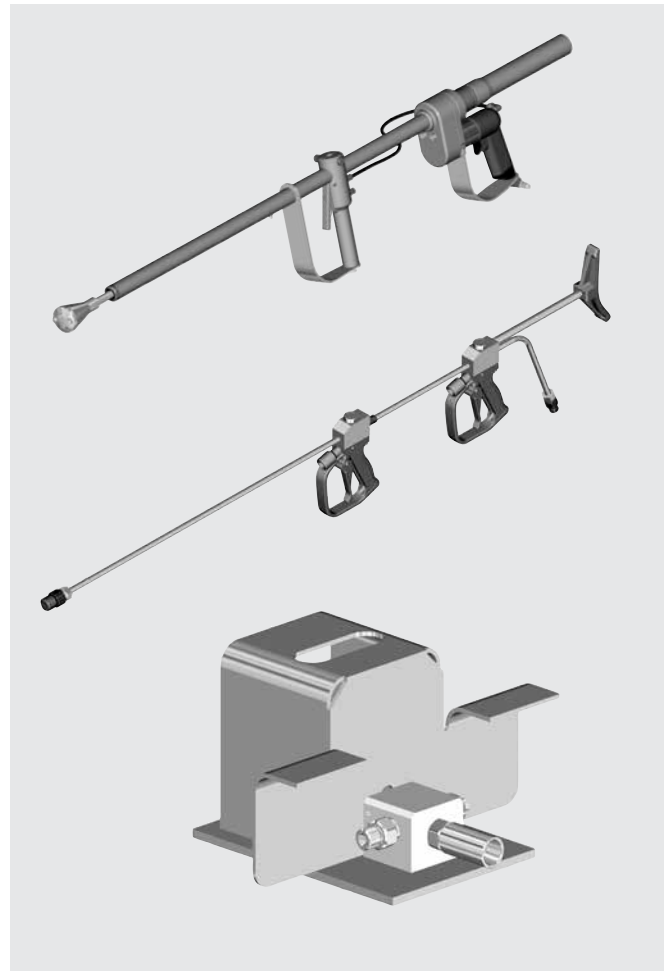
Tornado Gun

Jetstream's SP-40 Tornado Spinner Gun has been on the market for many years with proven productivity results. The dual trigger, air-powered rotating waterblast control gun is used in conjunction with a Jetstream tumble box, multi-mode or unloader style, and the Tornado nozzle or another self rotating nozzle.

- Sealed swivel assembly with heavy-duty thrust bearing and quick-change swivel seal
- All pressure bearing components are stainless steel
- Large internal air porting for quick pressure release
- Lightweight

Durasafe™ Hand Guns (Dump Style)

Designed with safety, comfort and simplicity in mind, the Durasafe™ 40,000 psi control guns are used for a variety of surface cleaning applications. The DCP models feature fully adjustable body pads for maximum operator comfort in any position (shoulder, hip, chest,

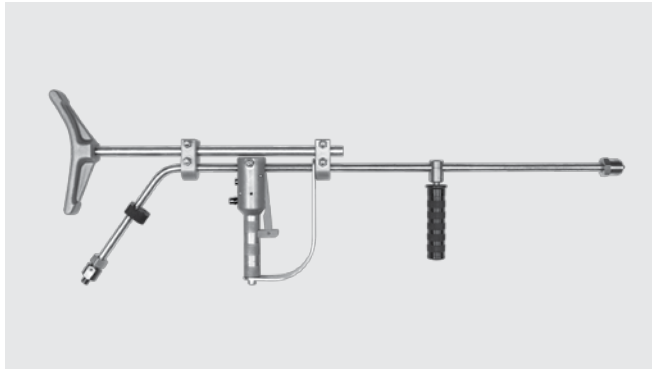


etc.). The DCPx models showcase an ergonomically designed shoulder stock. In addition to the standard welded guns, Jetstream offers a field repairable option for barrel replacement to be performed in the field. Both standard and field repairable guns are offered in single or dual trigger.

Durasafe™ Foot Gun

The Durasafe™ foot gun is ideal for numerous tube cleaning applications. A recent upgrade was the larger opening for easier boot clearance, which is now standard on all of the foot guns.

- Fast field replaceable cartridge design for minimal downtime
- All pressure bearing components are stainless steel
- Zinc-plated base and cage for corrosion resistance



NOTE: Nozzle head and nozzles not included.

QUADRABLAST™ AIR GUN

The QuadraBlast* air gun is an air actuated single or dual trigger waterblast control gun. While maintaining productivity and limiting operator exposure to hazardous conditions, this gun was designed for superior field durability. Used in conjunction with the 40K Multi-Mode.

- Telescopic shoulder stock
- Dump cartridge located away from the gun
- Spring-loaded safety
- Maintenance made easy with minimal parts
- Lightweight

*This air gun utilizes a self-rotating nozzle. The nozzle currently recommended by Jetstream is the StoneAge™ Barracuda.

PART NO.	OVERALL LENGTH		WEIGHT		INLET CONNECTION*	NOZZLE CONNECTION	AIR REQUIREMENTS				MAX. FLOW		MAX. OPERATING PRESSURE	
	in	mm	lbs	kg			MAX. INLET PRESSURE		MAX. AIR CONSUMPTION		gpm	lpm	psi	bar
							psi	bar	cfs	l/s				
61799	43	1092	13	5.9	**	9/16" HP male	120	8.2	33	15	7	26.5	40,000	2,750
61800			16	7.25										

**Inlet connections: Four options available; see page F-7 items 15a, 15b, 15c, 15d.

QUADRABLAST GUN PACKAGE

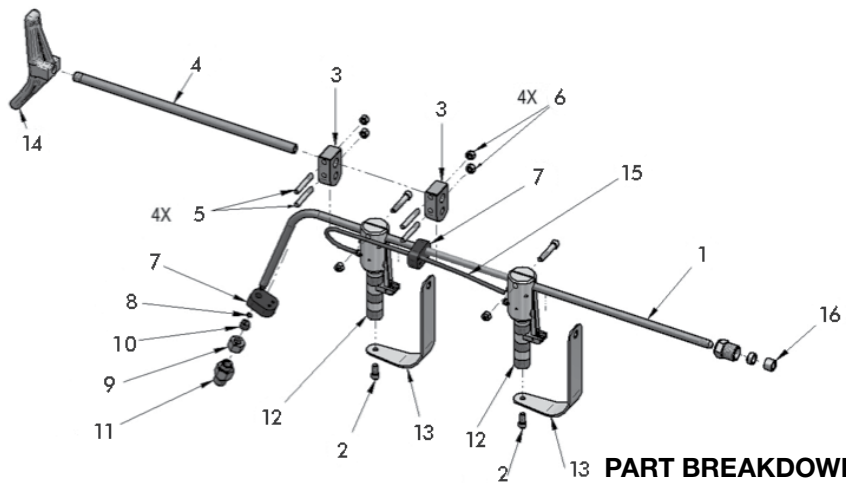
This package includes an air gun, a multi-mode valve, a 25ft hose with cover and a gun adapter.

Single Trigger Package

Part No. 62190 or

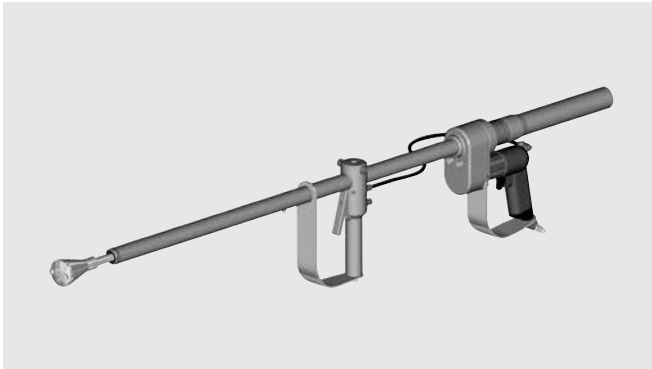
Dual Trigger Package

Part No. 62191



PART BREAKDOWN

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	61674	Barrel, Single Trigger, 36"	10	52087	Collet
2	27714	Capscrew	11	53468	Adapter, Rear Brl,40K
3	61672	Adjustable Stock Clamp	12	61801	Handle Ay, 2 Pos, 3 Way Valve
4	61675	Stock Extension, 18"	13	61671	Guard, Primary Trigger
5	53303	Stud, Cam Shoulder	14	50124	Shoulder Stock
6	25296	Nut	15	27740	Tubing, Plastic
7	61673	Rubber Air Hose Guide	16	28090	Gland
8	27502	O-Ring	17	29903	Case, Gun, 40K Tornado
9	52083	Nut, Collet			



SP-40 TORNADO SPINNER GUN

The SP-40 Tornado Spinner Gun, used in conjunction with the Jetstream multi-mode or unloader style tumble box, is a dual trigger, air-powered rotating waterblast control gun. Maximizing safety, serviceability and durability. Tornado Spinner Guns are designed to provide the highest level of productivity.

NOTE: Nozzle head and nozzles not included.

PART NO.	OVERALL LENGTH		WEIGHT		INLET CONNECTION*	NOZZLE CONNECTION	ROTATIONAL SPEED RANGE	AIR REQUIREMENTS				MAX. FLOW		MAX. OPERATING PRESSURE	
	in	mm	lbs	kg				MAX. INLET PRESSURE	MAX. AIR CONSUMPTION						
								psi	bar	cfm	l/s	gpm	lpm	psi	bar
53710	47.6	1210	10.9	4.9	3/8" HP Female	9/16" Button Seal	1500-3500	90	6.2	25	12	7	26.5	40,000	2,750
53880	56.6	1440	12.4	5.6											

* Gun includes adapter to connect hoses having 9/16" Type M connections. For other available fittings, see Section E.

RELATED PARTS:

Tornado Gun Package

Three optional packages are available.

Part No. 54170 includes: a 36" front barrel tornado gun, a unloader valve and a 25ft hose with cover.*

Part No. 54175 includes: a 36" front barrel tornado gun, a multi-mode valve and a 25ft hose with cover.*

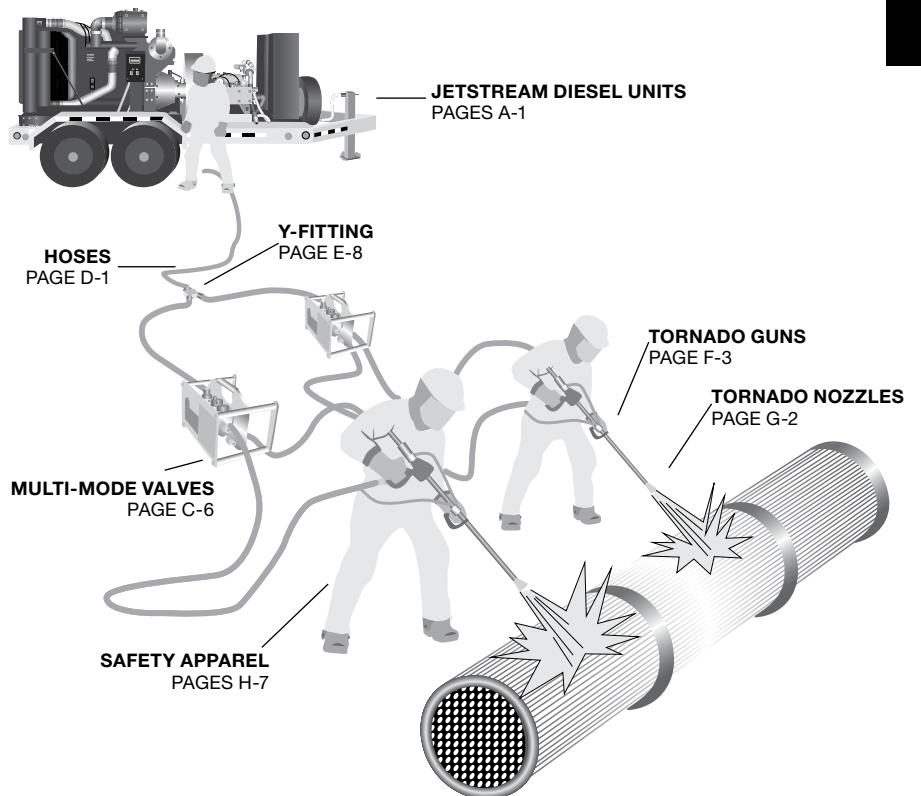
Part No. 55060 includes: a 48" front barrel tornado gun, a multi-mode valve and a 25ft hose with cover.*

*A rear barrel adapter must be added to these packages for hose connection. **Part No. 53529**

Adjustable Shoulder Stock: An adjustable shoulder stock is available for flexibility and comfort ability when using this air gun. **Part No. 60094**

MULTI-GUN APPLICATIONS

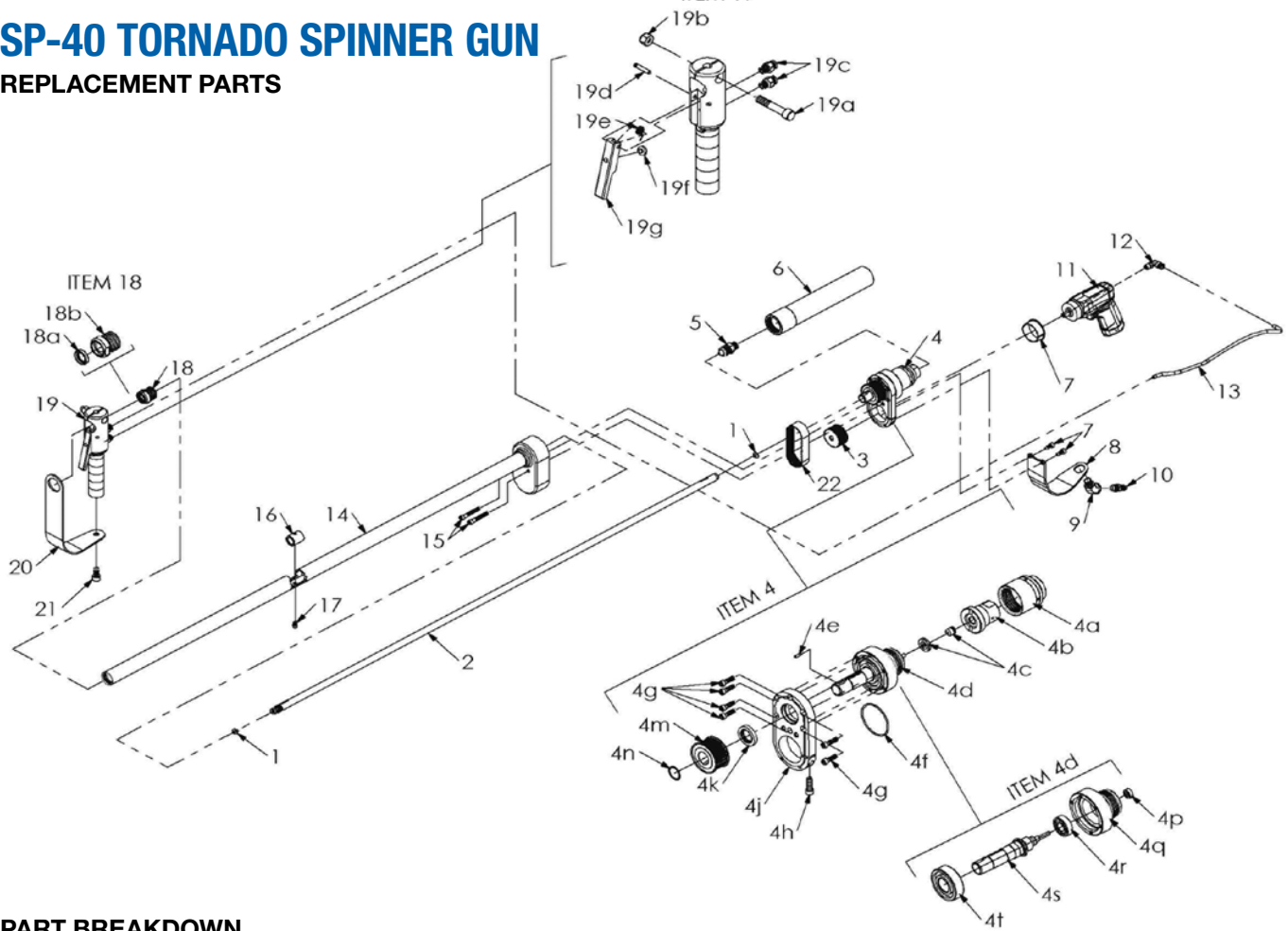
Jetstream's 40,000 psi air-operated Tornado Gun cleaning system allows the simultaneous use of multiple guns for maximum productivity in applications such as surface prep, coating removal, paint booth cleaning, stripe removal, tank cleaning, etc.



GUNS

SP-40 TORNADO SPINNER GUN

REPLACEMENT PARTS

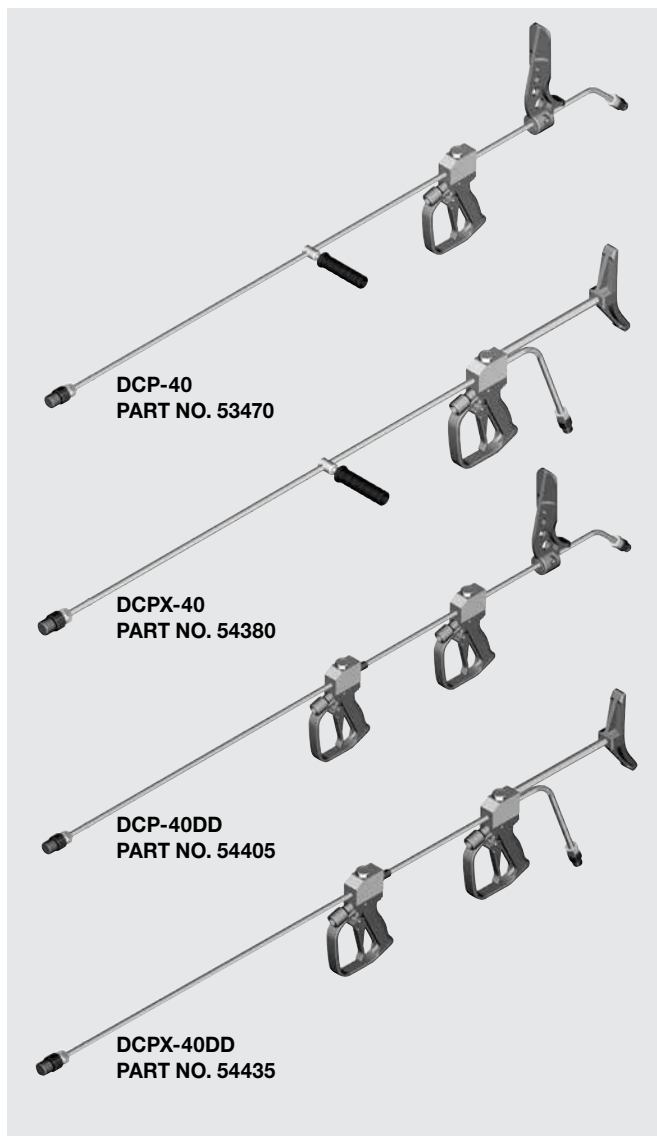


PART BREAKDOWN

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	54059	Button Seal	4q	53704	Swivel Housing	18	53972 <i>(with seal)</i>	Front Barrel Bushing
2	53701	36" Barrel	4r	27710	Guide Bushing	18a	27707	Barrel Seal
	53894	48" Barrel	4s	53708	Shaft	18b	53732	Front Barrel Bushing
3	54307	Driver Sprocket	4t	27711	Thrust Bearing	19	53785	Secondary Handle
4	53973	Swivel Assembly	5	27530	Adapter, 3/8" High Pressure Male x 9/16" Type M Male	19a	53762	Clamp Stud
4a	53711	Swivel Nut	6	53723	Burst Shield	19b	25296	Nut
4b	53709	Inlet Adapter	8	27649	Trigger Guard	19c	27732	Tubing Adapter
4c	53775	Seal Kit	9	28224	Elbow	19d	53787	Pin
4d	54230	Swivel Rebuild Kit	10	28223	Male Quick Disconnect Fitting	19e	53798	Spring
4e	27277	Pin	11	29535	Air Motor	19f	27719	Bumper
4f	27883	O-Ring	12	27733	Elbow	19g	53761	Trigger
4g	27716	Capscrew	13	27740	Tubing (Order in Feet)	20	27662	Trigger Guard
4h	27713	Capscrew	14	54484	36" Barrel Housing	21	27714	Capscrew
4j	53703	Mounting Plate	14	54486	48" Barrel Housing	22	27661	Belt
4k	27708	Shaft Seal	15	27717	Capscrew	23**	60094	Adjustable Shoulder Stock (Optional)
4m	53782	Driven Sprocket	16	53771	Center Barrel Bushing*	24**	60095	Shoulder Stock Extension
4n	27712	Retaining Ring	17	27492	Grease Zerk*	25**	60098	Shoulder Stock Clamps
4p	27709	Shaft Seal						

*48" barrel model uses two center barrel bushings and two grease zerks. 36" barrel model uses one of each. **Not Shown

GUNS



DURASAFE™ HAND GUNS HAND CONTROL DUMP STYLE

DuraSafe™ 40,000 psi control guns allow the operator to have complete control of the pressure at all times.

- Replaceable cartridge design for minimal downtime.
- 48" distance from primary trigger to end of barrel to ensure maximum operator safety.**
- Lightweight.
- Adjustable secondary grip included with single trigger models.
- Dual trigger models require both triggers to be engaged in order to build system pressure for maximum operator safety.
- All pressure-bearing components are stainless steel.
- Equipped with holder for single nozzle.
- Ideal for use with self-rotating nozzles.
- Fully field repairable guns available. No barrel weldments allows for gun maintenance to be completed on the job.
- Optional color coded guns include the orange colored barrels, handle and a 40,000 psi decal on the body. (See page H-2 for other color coded parts.)

GUNS

STANDARD, WELDED GUNS									
PART NO.	MODEL	TRIGGER ACTUATION	REST TYPE	INLET CONNECTION*	OUTLET CONNECTION	LENGTH**		MAX. OPERATING PRESSURE	
						in	mm	psi	bar
53470	DCP-40	Single	Body Pad	Various - Ordered Separately	9/16" HP Male	71	180	40,000	2,750
54380	DCPx-40	Single	Shoulder Stock			66	167	40,000	2,750
54405	DCP-40DD	Dual	Body Pad			75	190	40,000	2,750
54435	DCPx-40DD	Dual	Shoulder Stock			70	177	40,000	2,750
FULLY FIELD REPAIRABLE GUNS									
56995	FR-40SD	Single	Shoulder Stock	Jetstream 40K	9/16" HP Male	66	167	40,000	2,750
56991	FR-40DD	Dual	Shoulder Stock			66	167	40,000	2,750
ORANGE COLOR CODED – FULLY FIELD REPAIRABLE GUN									
61423	FR-40SD	Single	Shoulder Stock	Jetstream 40K	9/16" HP Male	66	167	40,000	2,750

*Adapters available for typical connection sizes and types. See replacement parts, Item 15, on the following page.

**Custom length barrels available. Call for information.

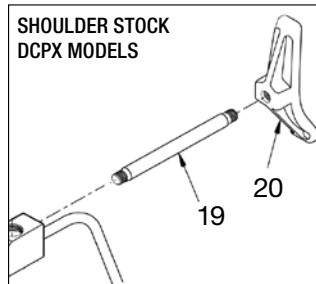
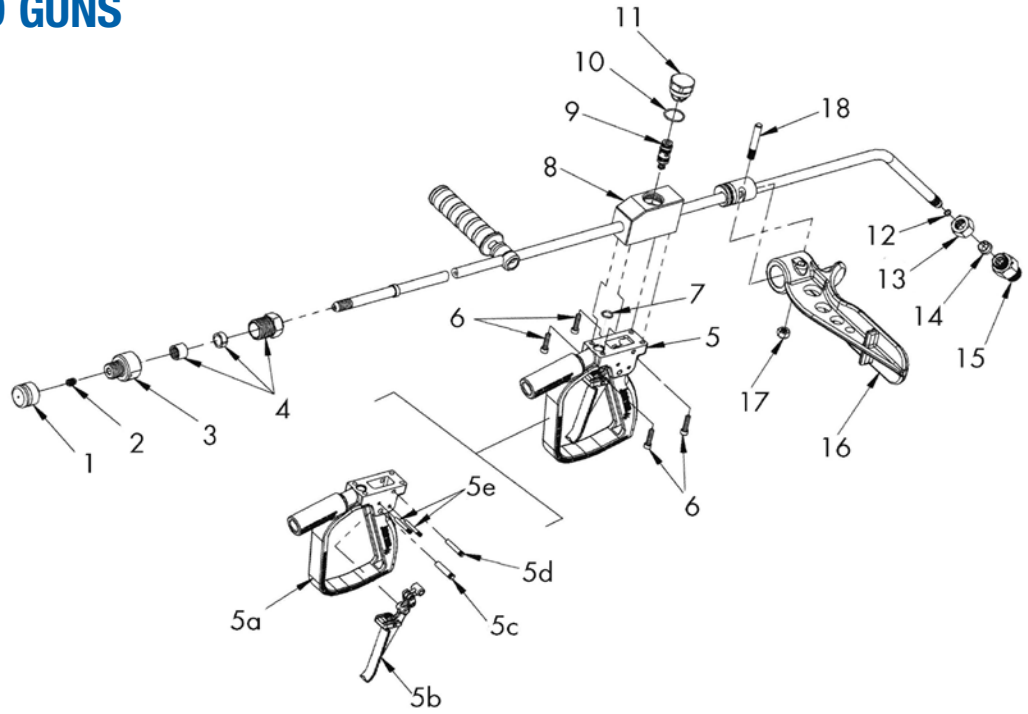
GUNS

40,000 PSI



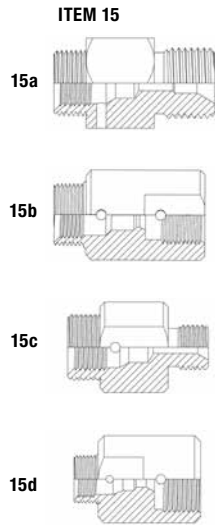
DURASAFE™ HAND GUNS

REPLACEMENT PARTS



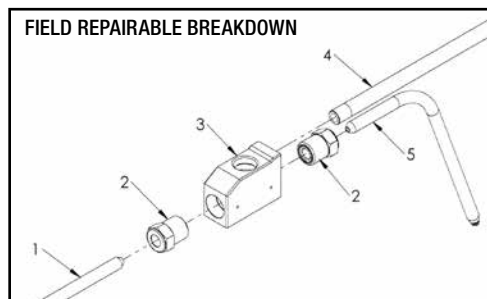
PART BREAKDOWN

GUNS

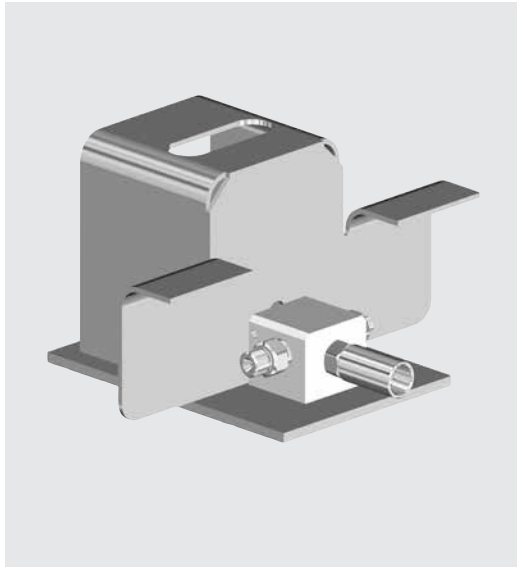


ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	53537	Nozzle Holder Cap	11	53175	Cartridge Plug
2	53502	UHP Nozzle Retainer	12	27502	O-Ring
3	53536	Nozzle Holder	13	52083	Collet Nut
4	28090	Anti-Vibration Gland Set	14	52087	Collet
5	57956	Handle Assembly	15a	53468	Rear Barrel Adapter, Type M-14 Male
6	26689	Capscrew	15b	54446	Rear Barrel Adapter, 9/16" HP Female
7	25193	O-Ring	15c	53529	Rear Barrel Adapter, Type M-9 Male
8	53465	DCP-40 Body Assembly	15d	53534	Rear Barrel Adapter, 3/8" HP Female
	54385	DCPx-40 Body Assembly	16	53304	Shoulder Stock (DCP models only)
	54410	DCP-40DD Body Assembly	17	25296	Nut (DCP models only)
	54440	DCPx-40DD Body Assembly	18	53303	Stud (DCP models only)
9	53475	Cartridge	19	50127	Extension (DCPx models only)
10	25467	O-Ring	20	50124	Shoulder Stock (DCPx models only)

PART BREAKDOWN



ITEM	PART NO.	DESCRIPTION
1	54209-48	Front Barrel (Single Trigger)
	54209-36	Front Barrel (Dual Trigger)
2	28090	Anti-Vibration Gland Set
3	56997	FR-40SD/DD Body Assembly
4	51098-12	Extension
5	56996	Rear Barrel
6	54209-14	Center Nipple (Not Shown)



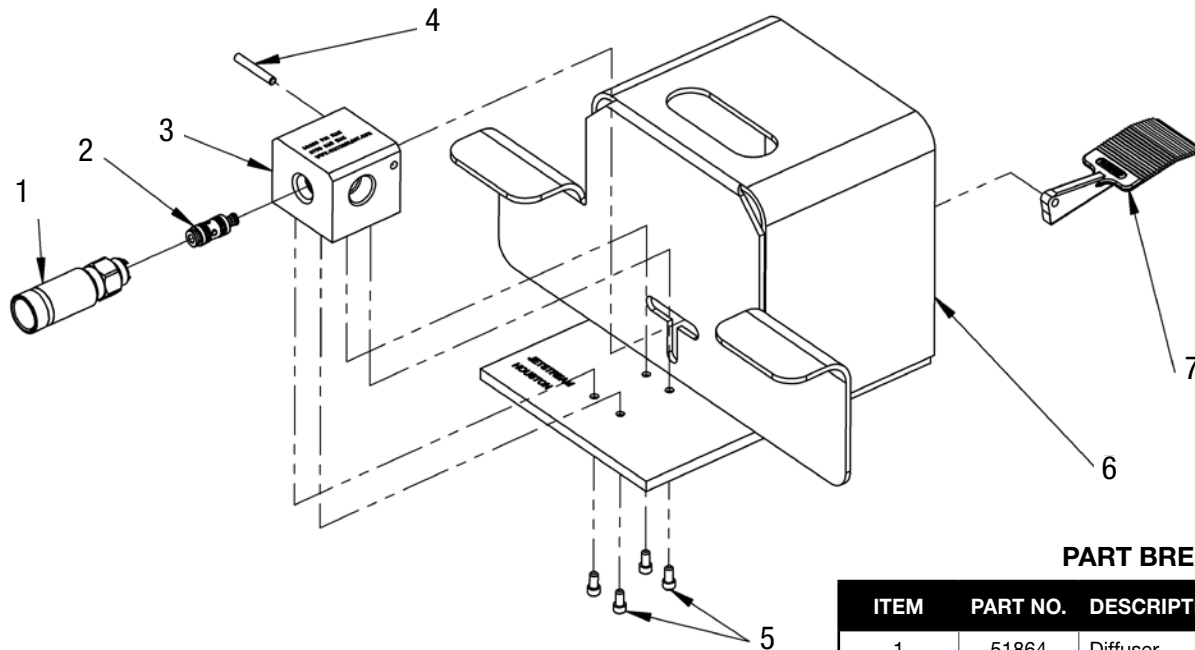
DURASAFE™ FOOT GUN

Ideal for a variety of waterblast tube cleaning applications, the Durasafe™ DCF-40 foot-operated control gun allows the operator to have complete control of the pressure at all times.

- Custom safety cage and thick blast wall protect operators better than any foot control gun in the industry
- Built in “wings” protect high pressure end fittings from external damage
- Color coding (*orange*) is available as a visual aspect to the foot guns. The color is displayed on both sides to be seen from any view. (*For additional Visual Safety System items, see page H-2*)

PART NO.	MODEL	INLET & OUTLET CONNECTIONS*	DIMENSIONS (H x W x D)		WEIGHT		MAX. OPERATING PRESSURE	
			in	mm	lbs	kg	psi	bar
59373	DCF-40	Jetstream 40K Port Female	7.9 x 14.8 x 12.7	200 x 380 x 320	26.2	11.9	40,000	2,750

*Adapters available for other connection sizes and types. See replacement parts below.



PART BREAKDOWN

ITEM	PART NO.	DESCRIPTION
1	51864	Diffuser
2	53475	C-40 Cartridge
3	53546	Body
4	26453	Pin
5	25261	Capscrew
6	55432	Base
7	53373	Pedal

ROTARY, STRAIGHT, & TUBE CLEANING NOZZLES

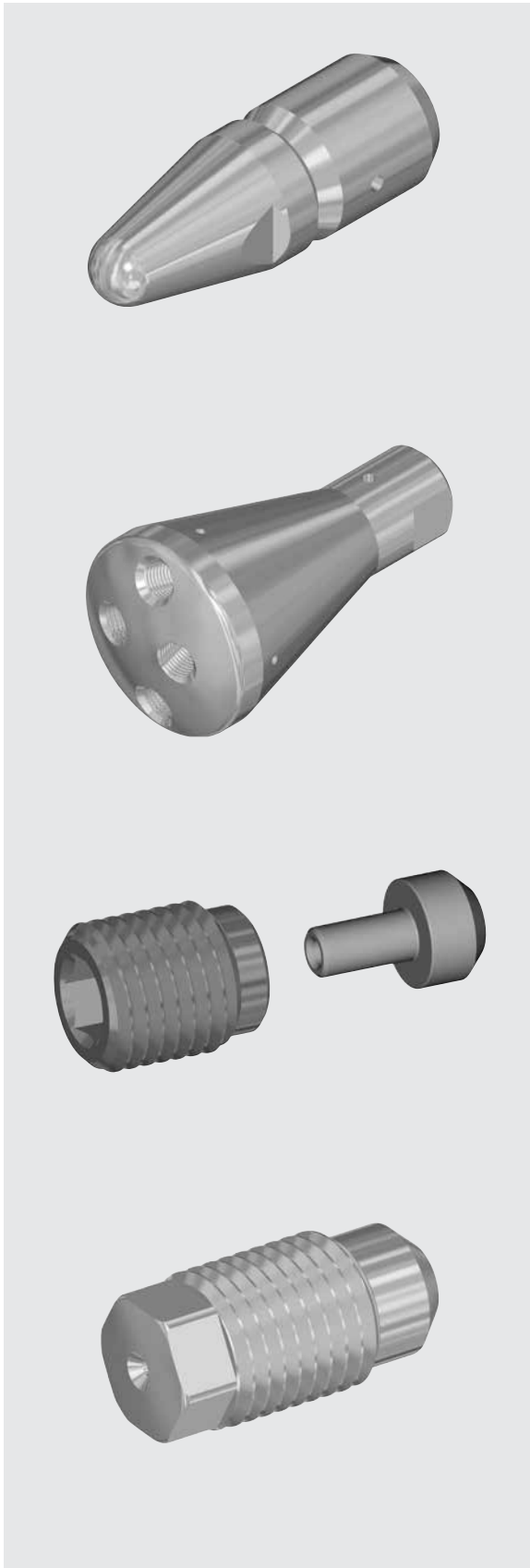
Jetstream provides nozzles for different 40,000 psi applications in surface preparation and tube cleaning. All of our nozzles are made of stainless steel or hardened steel and treated to withstand ultra high pressures.

The Tornado nozzle is a rotary nozzle designed to use in conjunction with the Jetstream tornado gun or other air-powered rotary control guns. This nozzle utilizes the UHPX sapphire nozzles for the high output.

The UHP are replaceable sapphire nozzles that are installed in a special retainer for use. The UHPX nozzles are the premier high productivity sapphire nozzles and are used in a variety of 40,000 psi applications. The tapered orifice retainer reduces turbulence and provides a cohesive, aggressive waterjet.

Tube cleaning nozzles are drilled for each order and are designed for use at the end of a flex lance or rigid lance. The configurations and flow ratings are customized to each specific request per the job requirements. Jetstream has put together fourteen standard patterns; however, these can be drilled in any pattern requested and it has been determined that the nozzle will perform efficiently.

NOTE: Jetstream is an authorized distributor for many vendors and can offer additional specialized rotary, abrasive cutting and pipe cleaning nozzles upon request.



NOZZLES

NOZZLES

40,000 PSI



TORNADO SURFACE CLEANING NOZZLE

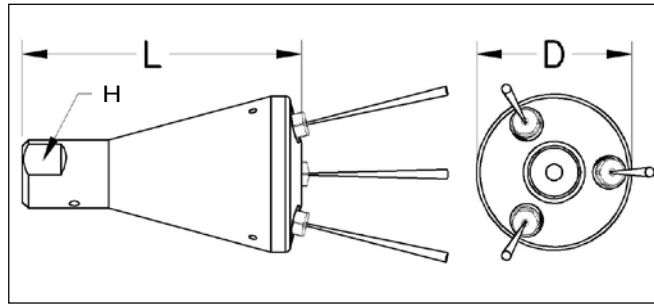
Designed for use with the Jetstream Tornado Gun and other air-powered rotary control guns.

- Button seal connection prevents wear and leakage of the nozzle
- Manufactured from heat-treated stainless steel
- Utilizes Jetstream UHPX or UHP replaceable nozzle tips
- Maximum Operating Pressure: 40,000 psi (2,750 bar)

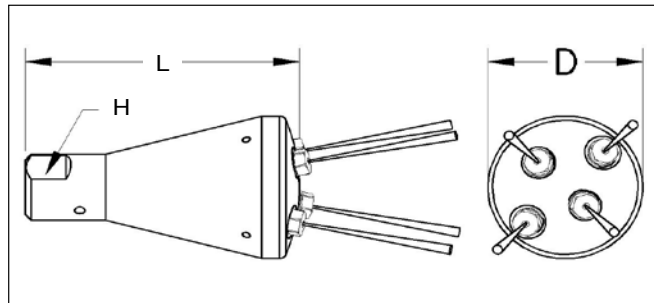
RELATED PARTS:

Part No. 53763 Nozzle Guard

Part No. 53502 Screw



PART NO. 53970: 3-JEWEL PATTERN



PART NO. 53971: STAGGERED 4-JEWEL PATTERN

ASSEMBLY PART NO.	DIAMETER (D)		ASSEMBLY LENGTH (L)		FLATS (H)		INLET CONNECTION*	MAX. OPERATING PRESSURE		REPLACEMENT SEAL
	in	mm	in	mm	in	mm		psi	bar	
53970	1.99	50.5	3.60	91.4	1.29	0.59	9/16" Button Seal	40,000	2,750	 PART NO. J54059
53971	1.90	48.3	3.37	85.6	1.16	0.53	9/16" Button Seal	40,000	2,750	

*See Page I-4 for connection specifications.

NOZZLES

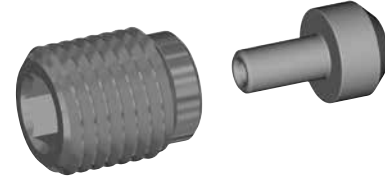
NOZZLES

40,000 PSI



UHP NOZZLES

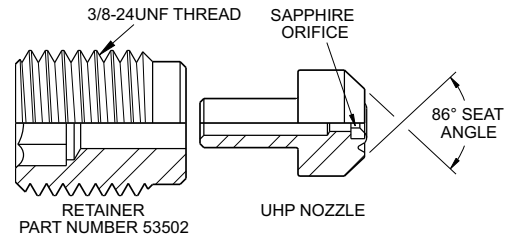
PART NO.	ORIFICE SIZE		NOZZLE FLOW, UHP NOZZLE @ SELECTED WORKING PRESSURES					
			30,000 psi (2,069 bar)		35,000 psi (2,414 bar)		40,000 psi (2,750 bar)	
	in	mm	gpm	lpm	gpm	lpm	gpm	lpm
54436	0.007	0.18	0.16	0.61	0.17	0.66	0.19	0.70
53506	0.008	0.20	0.21	0.80	0.23	0.86	0.24	0.92
54437	0.009	0.23	0.27	1.0	0.29	1.1	0.31	1.2
53507	0.010	0.25	0.33	1.2	0.36	1.3	0.38	1.4
54438	0.011	0.28	0.40	1.5	0.43	1.6	0.46	1.7
53508	0.012	0.30	0.47	1.8	0.51	1.9	0.55	2.1
53917	0.013	0.33	0.56	2.1	0.60	2.3	0.64	2.4
53509	0.014	0.36	0.65	2.4	0.70	2.6	0.74	2.8
54439	0.015	0.38	0.74	2.8	0.80	3.0	0.86	3.2
53511	0.016	0.41	0.84	3.2	0.91	3.4	0.97	3.7
53964	0.017	0.43	0.95	3.6	1.0	3.9	1.1	4.2
53512	0.018	0.46	1.1	4.0	1.2	4.4	1.2	4.7
53951	0.019	0.48	1.2	4.5	1.3	4.9	1.4	5.2
53513	0.020	0.51	1.3	5.0	1.4	5.4	1.5	5.8
54007	0.021	0.53	1.5	5.5	1.6	5.9	1.7	6.3
54008	0.022	0.56	1.6	6.0	1.7	6.5	1.8	7.0
53514	0.023	0.58	1.7	6.6	1.9	7.1	2.0	7.6
54009	0.024	0.61	1.9	7.2	2.0	7.7	2.2	8.3
53516	0.025	0.64	2.1	7.8	2.2	8.4	2.4	9.0



- Economically designed replaceable sapphire nozzle.
- Installed using a special retainer (see Related Items below).

Related Items

- 53502 UHP Nozzle Retainer
- 53503 UHP Plug

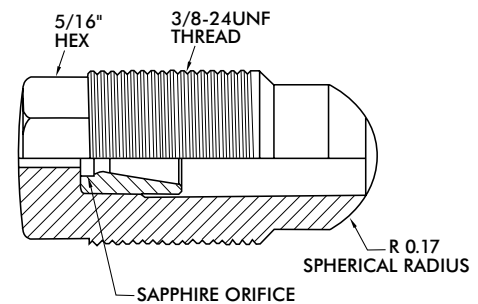


UHPX NOZZLES

54016	0.006	0.15	0.12	0.47	0.13	0.51	0.14	0.55
53873	0.007	0.18	0.17	0.64	0.18	0.69	0.20	0.74
53637	0.008	0.20	0.22	0.84	0.24	0.91	0.26	1.0
53874	0.009	0.23	0.28	1.1	0.30	1.1	0.32	1.2
53638	0.010	0.25	0.35	1.3	0.37	1.4	0.40	1.5
53875	0.011	0.28	0.42	1.6	0.45	1.7	0.48	1.8
53639	0.012	0.30	0.50	1.9	0.54	2.0	0.58	2.2
53876	0.013	0.33	0.59	2.2	0.63	2.4	0.68	2.6
53641	0.014	0.36	0.68	2.6	0.73	2.8	0.78	3.0
53902	0.015	0.38	0.78	3.0	0.80	3.2	0.90	3.4
53642	0.016	0.41	0.89	3.4	1.0	3.6	1.0	3.9
53903	0.017	0.43	1.0	3.8	1.1	4.1	1.2	4.4
53643	0.018	0.46	1.1	4.2	1.2	4.6	1.3	4.9
53877	0.019	0.48	1.3	4.7	1.4	5.1	1.4	5.5
53644	0.020	0.51	1.4	5.2	1.5	5.7	1.6	6.1
54017	0.021	0.53	1.5	5.8	1.7	6.2	1.8	6.7
54018	0.022	0.56	1.7	6.3	1.8	6.9	1.9	7.3
53646	0.023	0.58	1.8	6.9	2.0	7.5	2.1	8.0
54019	0.024	0.61	2.0	7.3	2.2	8.2	2.3	8.7
53647	0.025	0.64	2.2	8.2	2.3	8.9	2.5	9.5



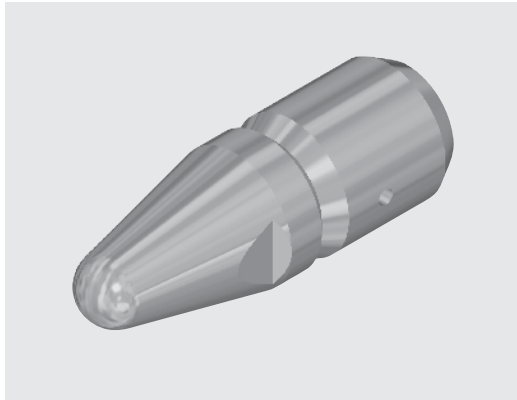
- Premier high productivity sapphire nozzle.
- Tapered orifice retainer reduces turbulence and provides a cohesive, aggressive waterjet.



NOZZLES

NOZZLES

40,000 PSI



UHPE EVAPORATOR TUBE CLEANING NOZZLES


Designed for use with Flex or Rigid Lances


- High pressure female left-hand or right-hand threads
- Hardened stainless steel
- Custom drilled patterns available upon request

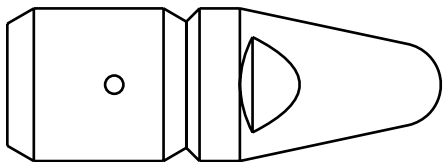
UHPEX - ABBCC

Nozzle Sizes (A)

Nozzles shown to actual size

1=1/4" THREADED NOZZLE BODY	
	
Connection Type*	1/4" HP Lance
Outside diameter	.375
Overall length	1.25

2=3/8" THREADED NOZZLE BODY	
	
Connection Type*	3/8" HP Lance
Outside diameter	.50
Overall length	1.59

9/16" THREADED NOZZLE BODY	
	
Connection Type*	9/16" HP Lance
Outside diameter	.75
Overall length	2.13

*Left hand or right hand threads must be specified when ordering.

UHPE

Nozzle Type

40,000 psi rated Jetstream
"Ultra-High Pressure Evaporator"

X

Threads

L = Left Hand Threads
R = Right Hand Threads

A

Nozzle Size (A)

1 = 1/4" threaded nozzle body
2 = 3/8" threaded nozzle body
3 = 9/16" threaded nozzle body

BB

Nozzle Pattern (BB)

Select the two digit number corresponding to the desired pattern. See Patterns chart on the next page.

When sizing a nozzle, it is important to note that each pattern has a corresponding minimum flow rating determined by the number of orifices in the pattern.

Example: 06 denotes a nozzle with 1 jet front, 3 jets drilled at the forward location, and 6 jets drilled at the back location. This particular pattern is available only for nozzles with a flow rating number of 4 or greater.

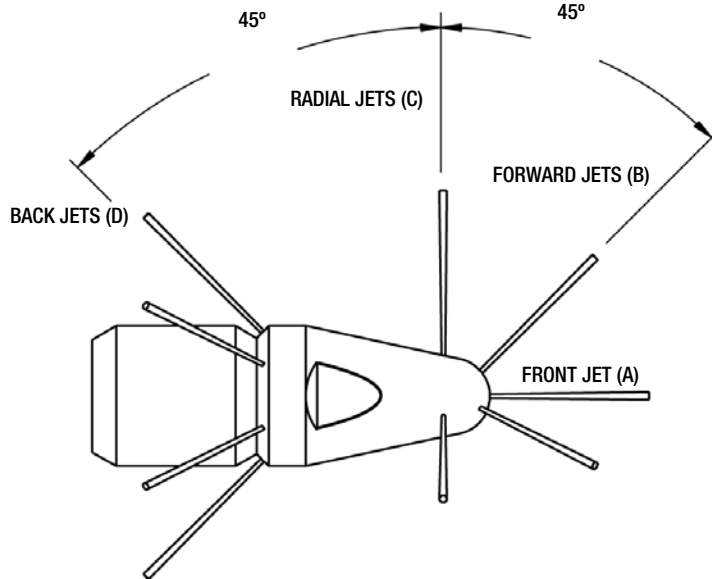
CC

Nozzle Flow Rating (CC)

To select the correct flow number:

- 1) Determine the desired nozzle tip pressure.
- 2) Consult available flow charts for hoses, flexible lances, and rigid lances which will be used for the tube cleaning operation to determine the amount of flow through all components which will result in the desired tip pressure.
- 3) Find the column in the flow rating chart (next page) which corresponds to the desired tip pressure, and select the flow number corresponding to the row containing the desired flow rate within that column.

NOZZLE PATTERNS (BB)



JET LOCATOR	USE WITH	FLEXIBLE OR RIGID LANCE									RIGID LANCE ONLY				
	PATTERN	01	02	03	04	05	06	07	08	09	10	11	12	13	14
	NUMBER OF JETS AT EACH LOCATION														
	FRONT JETS (A)	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	FORWARD JETS (B)					2	3				4				
	RADIAL JETS (C)							2	4	3	4	3	4	8	4
	BACK JETS (D)	3	4	6	8	4	6	4	4	6					
	TOTAL JETS	4	5	7	9	7	10	7	9	10	9	4	5	9	4
	MINIMUM FLOW RATING	0	1	2	3	2	4	2	3	4	3	0	1	3	0

NOZZLE FLOW RATING (CC)

FLOW RATING NUMBER	EQUIVALENT ORIFICE SIZE (IN)	FLOW (GPM/LPM) @ SPECIFIED PRESSURES (PSI/BAR)											
		30,000 psi	2,000 bar	32,000 psi	2,150 bar	34,000 psi	2,300 bar	36,000 psi	2,450 bar	38,000 psi	2,600 bar	40,000 psi	2,750 bar
0	0.029	2.8	10.4	2.9	10.8	3.0	11.2	3.1	11.5	3.1	11.9	3.2	12.2
1	0.033	3.6	13.3	3.7	13.8	3.8	14.2	3.9	14.7	4.0	15.2	4.1	15.6
2	0.038	4.7	17.6	4.9	18.3	5.0	18.9	5.2	19.5	5.3	20.1	5.5	20.7
3	0.042	5.8	21.5	6.0	22.3	6.2	23.1	6.3	23.8	6.5	24.5	6.7	25.3
4*	0.047	7.1	26.4	7.3	27.4	7.5	28.3	7.8	29.2	8.0	30.1	8.2	31.0
5	0.055	9.9	36.9	10.2	38.3	10.6	39.6	10.9	40.9	11.2	42.1	11.5	43.3
6	0.063	12.8	47.7	13.2	49.4	13.6	51.1	14.0	52.8	**	**	**	**
7	0.067	14.7	54.8	15.2	56.8	**	**	**	**	**	**	**	**
8	0.070	16.1	59.8	**	**	**	**	**	**	**	**	**	**

*Typical flow used. It is recommended not to exceed 8gpm for hand lancing.

NOZZLES



SAFETY APPAREL & EQUIPMENT

SAFETY. The one word every organization places at the top of the list when thinking about an employee. Jetstream understands the importance of conducting a safe environment when working in any high pressure waterblasting application. From personal protective equipment (PPE) to caution tape and signage, Jetstream provides a complete line of safety products to ensure a well protected jobsite and operator safety.

Products included in this section:

Visual Safety System

- Jetstream's pioneered Visual Safety System
- Safety protection through color coding of parts
- Guns, Foot Guns, Hoses, Lances, Fittings and Decals

Safety Shrouds

- Standard Waterblasting Safety Shrouds
- TST Hose Shrouds
- TST Hose Connection Covers
- Covered Safety Whips

Flex Lance Safety

- Hand-Held Lance Grip & Accessories
- Pipe and Tube Cleaning Exit Safety Devices

Personal Protective Equipment (PPE)

- TurtleSkin[®] WaterArmor
- TST[®] Waterjet Protection

Safety Accessories

- Safety Glasses, Goggles, Boots and Gloves
- Face Shield, Hard Hats, and Ear Protection
- Protection Suits

Safety Tape, Signs and Decals

Safety Hose Checks

- Nylon
- Stainless Steel



VISUAL SAFETY SYSTEM

PROTECT YOUR WORKERS AND THE WATERBLASTING EQUIPMENT WITH JETSTREAM'S VISUAL SAFETY SYSTEM.

Ensuring the operator is using the correct equipment is now identifiable from a distance. Jetstream's Visual Safety System combines highly visible and color-matched decals with additional markers to clearly show waterblast components in use are correctly and safely suited to current pump pressures.

Jetstream pioneered the visual safety system in 2011 with guns and adapters using a color coding system. Since this time, the WJTA (WaterJet Technology Association) now recommends the use of a color coding for all pressures on highly visible parts. The color recommendations are:

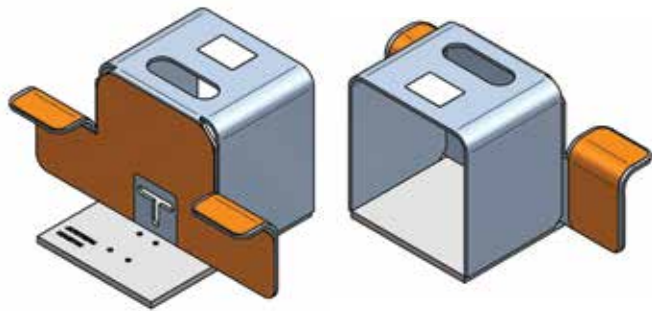
- YELLOW – 10,000 psi
- GREEN – 15,000 psi
- BLUE – 20,000 psi
- ORANGE – 40,000 psi

In order to align with these recommendations, Jetstream is now providing color coded guns, foot guns, hoses, lances and fittings.

Guns and Foot Guns—Guns and foot guns are available upon request with the color code identifier. Each gun includes the color on the front and rear barrels, a fully color coated handle and a Visual Safety System decal placed on the gun body. For the foot gun, the entire front surface will be color coded, as well as the back side of the wings. This visually enables the color identifier to be seen from either side of the foot pedal. (See page F-5 for further gun details.)

Hoses and Lances—Identifying a pressure of a supply hose and lance will now be easy. Supply hoses with the abrasion cover spiral will be orange. Beginning in 2015, all flex lances supplied by Jetstream for 40,000 psi will be orange from end to end. (See page D-1 for hose and lance options.)

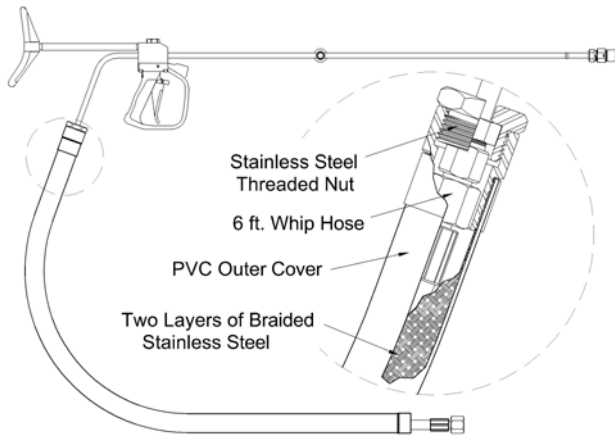
Fittings—Adapters are now available with an orange xylan coating. Additional fittings can be color-coded upon request. (See page E-5 for connector options.)



Visual Safety System Decals are highly visible and colored to provide operators and supervisors with visual confirmation that all waterblast components, not colored, are appropriately matched to pressure ratings. Part No. 71744



SAFETY



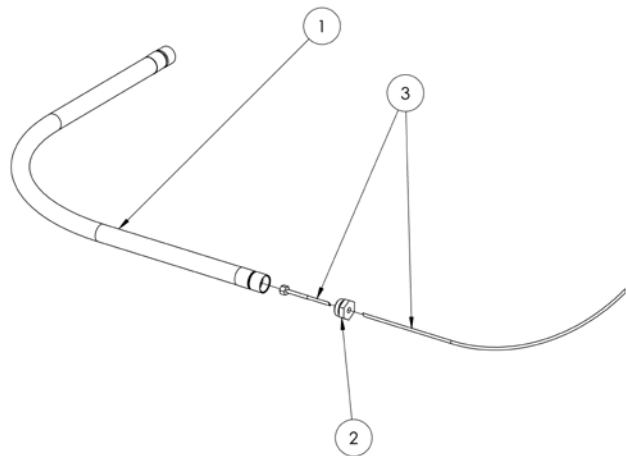
SAFETY SHROUDS

Designed for use with the 40,000 psi DuraSafe™ series of control guns, a safety shroud provides an additional layer of operator protection in the event of a hose or end fitting failure by completely enclosing the hose and connection fittings. Constructed of flexible, durable, and abrasion resistant thermoplastic covering two layers of stainless steel braiding.

PART NO.	LENGTH		HOSE CONNECTION*	HOSE I.D.		REPLACEMENT PARTS			MAX. OPERATING PRESSURE	
	ft	m		in	mm	SHROUD	NUT	WHIP HOSE**	psi	bar
54640	6	1.8	7/8" Type M Female	.32	8	28860	28861	59469-0064141	40,000	2,750
54645	6	1.8	9/16" Type M Female	.20	5	28860	28861	27731-0063939	40,600	2,800
56730	10	3.0	7/8" Type M Female	.32	8	28860-10	28861	59469-0104141	40,000	2,750

*See Page I-5 for a description of each connection type.

**Whip Hoses listed do not have abrasion or burst shield guards and are not intended for use near an operator without a safety shroud.



PART BREAKDOWN

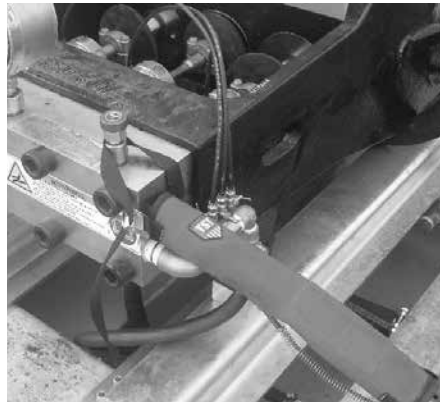
ITEM	PART NO.	DESCRIPTION
1	28860	Shroud
2	28861	Nut
3	See Above	Whip Hose

SAFETY



TST HOSE SHROUDS

PART NO.	SIZE
59008	36mm ID x 750mm long
59009	36mm ID x 1400mm long
59010	36mm ID x 180mm long
59011	47mm ID x 1400mm long swivel
59012	59mm ID x 750mm long
59013	59mm ID x 1400mm long
59014	59mm ID x 1800mm long



HOSE CONNECTION COVER

Perfect use to protect connections on pumps or foot panels. The cover has an adjustable strap and the other end has two loops for flexible use.

PART NO.	SIZE
62257	50mm ID x 400mm long



COVERED SAFETY WHIPS

These six foot hoses are designed for connection to 40,000 psi DuraSafe™ foot gun crimped on steel-reinforced heavy-duty synthetic rubber burst shield guard for additional protection in the event of hose failure.

PART NO.	LENGTH		HOSE CONNECTION*	HOSE I.D.		MAX. OPERATING PRESSURE	
	ft	m		in	mm	psi	bar
59469-00641412	6	1.8	7/8" Type M Female	.32	8	40,000	2,750
27731-00639392	6	1.8	9/16" Type M Female	.20	5	40,000	2,750

* See Page I-5 for a description of each connection type.



FLEX LANCE SAFETY GRIP

For use in flex lance tube cleaning operations, the safety grip prevents a nozzle from unexpectedly exiting a tube by providing a stop through which the sleeve of the flex lance will not pass. Package includes handle, lance stop retainer for use on tubes up to 3/4" O.D. Choose lance stop below (not included).
Part No. 51024

SAFETY GRIP ACCESSORIES

Lance Stops
Choose lance stops below based on flex lance ID.



Lance Stops

LANCE STOP PART NO.	FLEX LANCE SERIES NUMBER	FLEX LANCE NOMINAL I.D.	
		in	mm
51779	27731	.20	5
51044	28460	.16	4

Lance Stop Retainers
Choose lance stop retainers based on the outside diameter of the tube to be cleaned.



PART NO.	LENGTH
51425	for tubes up to 1" O.D.
51427	for tubes up to 2" O.D.



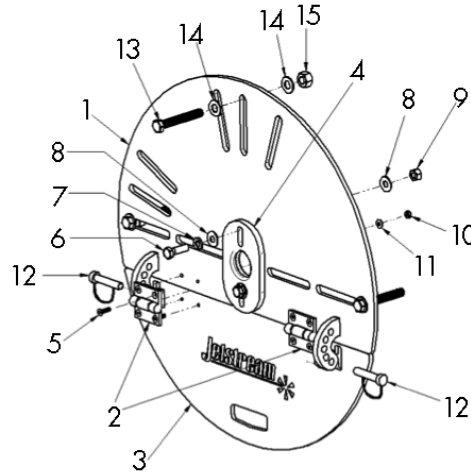
Safety Grip Shield
Clear, plastic shield attaches to the safety grip handle to deflect water exiting the tube.
Part No. J55785

SAFETY



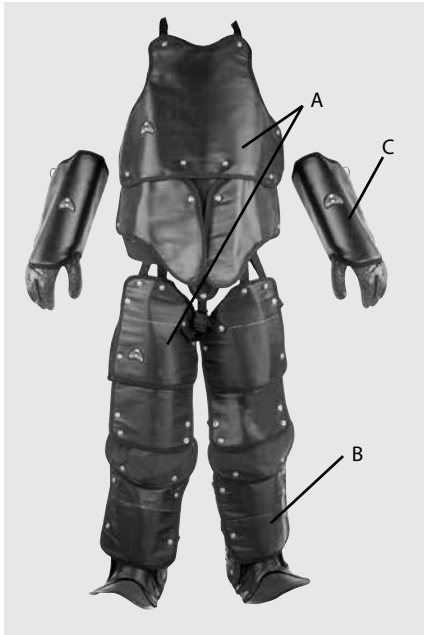
JETSTREAM PBA

The Jetstream Pipe Blast Armor is anti-withdrawal device used for pipe cleaning applications with pipes ranging from 5"-18". With the multiple mounting location points, the PBA provides complete pipe coverage with a lockable shutter to allow large debris removal. Part No. 61447



PART BREAKDOWN

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	61283	Pipe Cover	9	26562	Nut
2	61448	Shield Door Hinge	10	27449	Nut
3	61284	Tilt Panel	11	J70804	Washer
4	61288	Adjustment Plate	12	61449	Locking Pin
5	61461	Capscrew	13	61450	Capscrew
6	27126	Capscrew	14	59229	Washer
7	25249	Washer	15	26834	Nut
8	25251	Washer			



TURTLESKIN® WATERARMOR

Provides waterblast operators with a level of protection available from high-pressure waterjets.

- Proven protection up to 40,000 psi (2750 bar)
- Lightweight, hinged panel design provides flexibility without fatigue
- Modular design—buy only what you need
- Open back keeps operator cooler longer

ITEM(S)	PART NO.	DESCRIPTION
A	27885C	Safety Suit—Torso & Chaps
B	27884	Gaiters (Shins & Feet)
C	28589	Gauntlets (Hands & Forearms)

TST® WATERJET PROTECTION

TST® products provide protection to the operator without compromising on comfort or quality. Two levels of protection are offered depending on the protection needs and working pressures. See below for specific protection levels.

PROTECTION LEVEL*	COLOR IDENTIFIER	SINGLE JET	ROTARY JET
10/28	YELLOW	14,500 psi/1000 bar	40,600 psi/2800 bar
20/30	ORANGE	30,000 psi/2000 bar	43,500 psi/3000 bar

*Protection levels are located on all articles for quick identification.



TST® GAMMA KIT

Trousers and jacket with integrated hand protection.

PROTECTION LEVEL 10/28			PROTECTION LEVEL 20/30		
PART NO.	VENTILATED PART NO.*	SIZE	PART NO.	VENTILATED PART NO.*	SIZE
58962	58962-V	S/M	58963	58963-V	S/M
58901	58901-V	L/XL	58964	58964-V	L/XL
58902	58902-V	2XL/3XL	58965	58965-V	2XL/3XL
59873	59873-V	4XL/5XL	59874	59874-V	4XL/5XL
59875	59875-V	6XL	59876	59876-V	6XL

*Ventilated products consist of tubing throughout the suit with holes every five inches for complete coverage. (A cooling tube will need to be purchased with this system, as well. See page H-10.)



TST[®] DELTA KIT

Trousers, waistcoat, and hand protection.

PROTECTION LEVEL 10/28

PART NO.	VENTILATED PART NO.*	SIZE
58956	58956-V	S/M
58957	58957-V	L/XL
58958	58958-V	2XL/3XL

PROTECTION LEVEL 20/30

PART NO.	VENTILATED PART NO.*	SIZE
59859	58959-V	S/M
59860	58960-V	L/XL
59861	58961-V	2XL/3XL

*Ventilated products consist of tubing throughout the suit with holes every five inches for complete coverage. (A cooling tube will need to be purchased with this system, as well. See page H-10.)



TST[®] SIGMA KIT

Waistcoat & overall with integrated hand protection.

PROTECTION LEVEL 10/28

PART NO.	SIZE
58944	S
58945	M
58946	L
58947	XL
58948	2XL
58949	3XL

PROTECTION LEVEL 20/30

PART NO.	SIZE
58950	S
58951	M
58952	L
58953	XL
58954	2XL
58955	3XL



TST[®] TROUSERS

Individual item.

PROTECTION LEVEL 10/28

PART NO.	VENTILATED PART NO.*	SIZE
58966	58966-V	S/M
58967	58967-V	L/XL
58968	58968-V	2XL/3XL

PROTECTION LEVEL 20/30

PART NO.	VENTILATED PART NO.*	SIZE
59869	58969-V	S/M
59870	58970-V	L/XL
59871	58971-V	2XL/3XL

*Ventilated products consist of tubing throughout the suit with holes every five inches for complete coverage. (A cooling tube will need to be purchased with this system, as well. See page H-10.)



TST[®] JACKET

Integrated hand protection. Individual item.

PROTECTION LEVEL 10/28

PART NO.	SIZE
58972	S/M
58973	L/XL
58974	2XL/3XL

PROTECTION LEVEL 20/30

PART NO.	SIZE
59875	S/M
59876	L/XL
59877	2XL/3XL
59492	4XL/5XL



TST[®] WAISTCOAT

Individual item.

PROTECTION LEVEL 10/28

PART NO.	SIZE
58978	M-2XL
58979	3XL

PROTECTION LEVEL 20/30

PART NO.	SIZE
58980	M-2XL
58981	3XL



TST[®] OVERALL

Integrated hand protection. Individual item.

PROTECTION LEVEL 10/28

PART NO.	SIZE
58982	S
58983	M
58984	L
58985	XL
58986	2XL
58987	3XL

PROTECTION LEVEL 20/30

PART NO.	SIZE
58988	S
58989	M
58990	L
58991	XL
58992	2XL
58993	3XL



TST[®] HAND PROTECTION

Sold separately.

PROTECTION LEVEL 10/28

PART NO.	SIZE
58904	LEFT
58905	RIGHT

PROTECTION LEVEL 20/30

PART NO.	SIZE
58998	LEFT
58999	RIGHT



TST[®] APRON

One size fits all. Individual Item.

PART NO.	PROTECTION LEVEL
58903	10/28
58997	20/30



TST[®] WAISTCOAT W/APRON

One size fits all. Individual Item.

PART NO.	PROTECTION LEVEL
58955	10/28
58996	20/30



TST[®] BOOTS 3000

PART NO.	SIZE APPROX. US MEN
59000	8.5
59001	9
59002	10
58932	11
59003	12
59004	13
59005	14



TST[®] GAITERS

One size fits all. Pair.

PART NO.	PROTECTION LEVEL
58907	20/30



TST[®] BALACLAVA

Offers no waterjet protection.

PART NO.	PROTECTION LEVEL
59006	N/A



TST[®] PRO-OPERATOR GLOVES

Includes inner gloves. Pair.

PART NO.	PROTECTION LEVEL
60396	5/5/2



TST[®] GREASE REMOVER

PART NO.	L
59015	0.5
59016	2.5

VORTEX COOLER TUBE

Personal Air Conditioner. For full body cooling, a 25cfm or 35cfm tube is recommended. If the tube is not sized for the available air supply, it will perform poorly. Not shown.

PART NO.	CMF
61415	25 CFM
51416	35 CFM

SAFETY

SAFETY ACCESSORIES



Part No. J70316
Safety Glasses
PREMIUM
Clear/Gray anti-fog lens, adjustable nose pad, scratch resistant, UV-blocking, Z87+ approved.

Part No. J70317
Safety Glasses
PREMIUM
Gray/Gray anti-fog lens, adjustable nose pad, scratch resistant, UV-blocking, Z87+ approved.

Part No. J70318
Safety Glasses
ECONOMY
Scratch resistant, UV-blocking.



Part No. 25620
Safety Goggles
Soft frame with impact and chemical splash protection, anti-fog lens, Neoprene strap, Z87+ approved.



Part No. 26255
Face Shield
Clear
Multiple Mounting Slots.
Polycarbonate.

Part No. 26255T
Face Shield Tinted
Multiple Mounting Slots.
Polycarbonate.

Part No. 26255V
Face Shield Clear with Velcro
Multiple Mounting Slots with Velcro strip. Polycarbonate.



Part No. J70321
Ear Plugs
Uncorded w/noise reduction rating: 33
Molded Polyurethane Foam.

Part No. 25621
Universal Face Shield Bracket
Fits the brim of most hard hats. Plastic.



Part No. J70315
Hard Hat
White, six-point nylon suspension w/ ratchet knob.
Hard Plastic.

Part No. 25625
Hard Hat
White, six-point nylon suspension w/pin-lock adjustment.
Hard Plastic.



Part No. J70322
Ear Plugs
Corded w/noise reduction rating: 30
Molded Polyurethane Foam.



Part No. J70324-size
Premium 16" Boots
Steel toe, waterproof, meets ANSI Z41 PT99 Sect 1, 2, & 5.
SIZE 6 to 14. Black/ Yellow Rubber.

Part No. 27168-size
Economy 16" Boots
Steel Toe and waterproof.
SIZE 7 to 13.
Black Rubber.

Part No. J70326-size
12" Boots
Steel toe, waterproof, meets ANSI Z41 PT99 Sect 1.
SIZE 6 to 14.
Copper/Tan Neoprene.



Part No. 26894
Shin & Foot Guards
Padded instep and nylon straps.
Aluminum.



Part No. J70323-size
Water Protection Suits
Jacket, bib overall pants & face shield bib. PVC/Polyester.
SIZES M-5XL

Part No. 25617-size
Water Protection Suits
Jacket and bib overall pants.
PVC/Polyester.
SIZE M-7XL



Part No. 25624
Gloves
14" PVC/NITRILE.
Chemical resistant with rough finish.
Fully coated w/jersey lining.
SIZE 10.

Part No. J70327
Gloves
12" PVC
Rough Finished gloves. Cotton Lining. SIZE 10.

SAFETY TAPE, SIGNS AND DECALS



Part No. 26247
Health Hazard
Caution Sign
8½" x 11"



Part No. 26253
Restricted Caution
Sign
8½" x 11"



Part No. 25614
Waterblasting
Danger Sign
8½" x 11"



Part No. 28501
Safety Warning
Sticker



Part No. 57998
Safety Tape
"Caution:
Waterblasting
in Progress"
Dimensions:
3" x 300ft
75mm x 90 m



Part No. J70413
Safety Tape
"Danger:
Hydroblasting"
Dimensions:
3" x 1000ft
75mm x 300 m

Part No. 71147
Safety Warning
Decal Set
(Unit and Fluid End)

Part No. 71147-FE
Safety Warning
Decal Set
(Fluid End Only)

Part No. 29956
Jetstream Unit
Decal - Blue

Part No. 26717
Jetstream Unit
Decal - White

Part No. 71744
40K Color Coded
Pressure Decal

Part No. 29263
Safety Warning
Medical Card

SAFETY HOSE CHECKS



Part No. 27863
Nylon Hose Check
One Size Fits All



Part No. 52242
Steel Hose Check
For hoses smaller
than 1" I.D.

Part No. 53412
Steel Hose Check
For 1" I.D. or larger

UNIT CONVERSIONS & FORMULAS

MEASUREMENT	CONVERSION	EXAMPLE
LENGTH	1 in. = 25.4 mm	12 in. x 25.4 = 304.8 mm
	1 in. = .0254 m	120 in. x .0254 = 3.05 m
	1 ft. = .3048 m	12 ft. x .3048 = 3.68 m
	1 mm = .0394 in.	100 mm x .0394 = 3.94 in.
	1 m = 39.37 in.	10 m x 39.37 = 393.7 in.
	1 m = 3.281 ft.	10 m x 3.281 = 32.81 ft.
VOLUME	1 gal = 3.785 l	10 gal x 3.785 = 37.85 l
	1 liter = .2642 gal	100 liters x 26.42 = 26.42 gal
WEIGHT	1 lb. = .454 kg	10 lbs. x .454 = 4.54 kg
	1 kg = 2.205 lbs.	10 kg x 2.205 = 22.05 lbs.
PRESSURE	1 psi = .06895 bar	40,000 psi x .06895 = 2,750 bar
	1 bar = 14.503 psi	2,750 bar x 14.503 = 40,000 psi
FLOW	1 gpm = 3.785 lpm	30 gpm x 3.785 = 113.55 lpm
	1 lpm = .2642 gpm	100 lpm x .264 = 26.42 gpm
FORCE	1 lb. = 4.448 N	100 lbs. x 4.448 = 444.8 N
	1 N = .2248 lbs.	900 N x .2248 = 202.32 lbs.
TORQUE	1 lb.-ft. = 1.3567 N-m	100 lb.-ft. x 1.3567 = 135.67 N-m
	1 N-m = .737 lb.-ft.	100 N-m x .737 = 73.7 lb.-ft.
POWER	1 hp = .7457 kW	50 hp x .7457 = 37.29 kW
	1 kW = 1.341 hp	50 kW x 1.341 = 67.05 hp

FORMULA	ENGLISH UNITS	METRIC UNITS
Power Requirements*	hp = gpm x psi / 1550	kW = lpm x bar / 540

*Formulas assume 90% mechanical efficiency

CONNECTION TYPES

Several connection types are available for use with Jetstream 40,000 psi products. The purpose of this section is to allow users to identify the connections needed and provide information on the features and proper use of each.

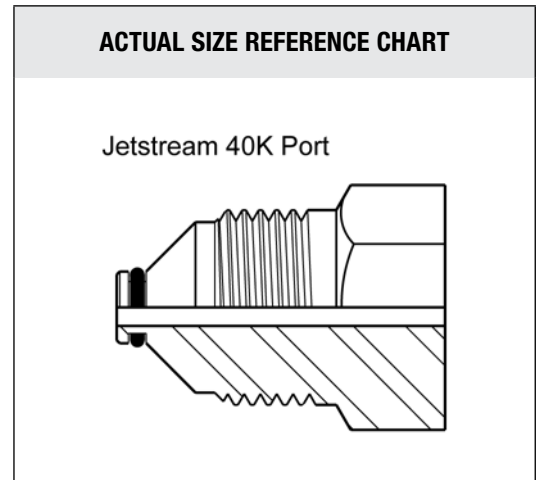
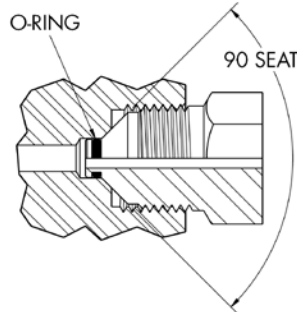


Note: Always apply thread lubricant (anti-seize) to male threads before assembling Jetstream 40K Port connections. See Fittings, page E-1, for thread lubricants available from Jetstream.

JETSTREAM 40K PORT

- Specially designed to prevent leakage and wear frequently associated with standard metal-to-metal seals by incorporating an o-ring with a metal-to-metal cone and seat backup.
- Repairing leaks requires only o-ring replacement, as opposed to standard high pressure connections which often require re-coning, or component replacement.
- Utilized in most Jetstream 40,000 psi products.

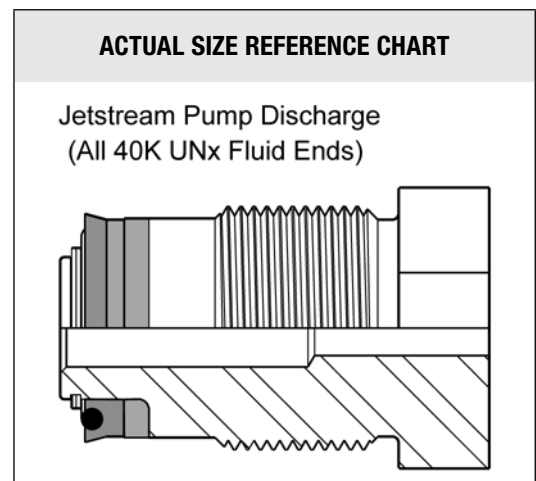
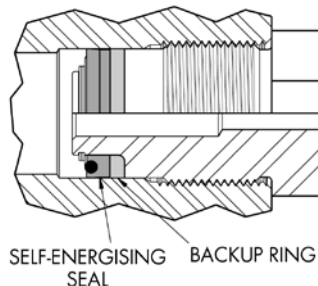
CONNECTION THREAD	RECOMMENDED TORQUE	
	ft-lbs	N-m
1" - 12UNF	75	102



JETSTREAM 40K PUMP DISCHARGE

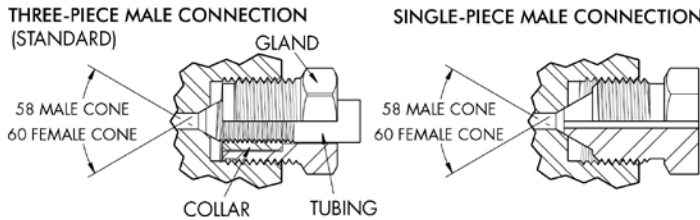
- Specially designed for use in all Jetstream 40,000 psi UNx manifold discharge ports.
- No metal-to-metal seals which can wear and require manifold replacement.

CONNECTION THREAD	RECOMMENDED TORQUE	
	ft-lbs	N-m
1 3/16" - 16 UN	75	102



HIGH PRESSURE (HP) CONNECTION TYPES

- Widely regarded as the industry standard connection for pressures from 30,000 to 60,000 psi (2,069 to 4,138 bar).
- Rated working pressure is dependent upon inner diameter bore size of tubing used. See HP Lance connection specs for rated working pressure of high pressure tubing.
- Connections exist in two different forms:
 1. Used to connect high pressure tubing with a conical male seat and left-handed threads to a female port using a gland nut and left-hand threaded collar.
 2. For many high pressure male fittings, the geometry of the gland, collar, and tubing is combined into one component that connects directly to a high pressure female port (Single Piece Style).
- Suitable for repetitive connection/disconnection.



SIZE	CONNECTION THREAD	COMMON NAME	TUBING THREAD* LEFT-HAND	RECOMMENDED TORQUE	
				ft-lbs	N-m
1/4" HP	9/16" - 18UNF	HP4	1/4" - 28UNF	25	34
3/8" HP	3/4" - 16UNF	HP6	3/8" - 24UNF	50	68
9/16" HP	1 1/8" - 12UNF	HP9	9/16" - 18UNF	75	102

*For three-piece connection styles only.

CONNECTION INSTRUCTIONS

1. 3 pc. Male Connection Style only—Liberally apply anti-seize to male tubing threads to prevent thread galling.
2. 3 pc. Male Connection Style only—Slide gland nut over tubing and thread collar (left-hand threaded) onto tubing until it is past the first one or two full threads of the tubing.
3. Both styles—Liberally apply anti-seize to male connection threads and male cone.
4. Both Styles—Install male connection into female port and tighten according to torque specification in chart above.

Note: Always apply thread lubricant (anti-seize) to male threads before assembling High Pressure connections to help prevent galling of threads. Coning and Threading tools available. See page I-8.

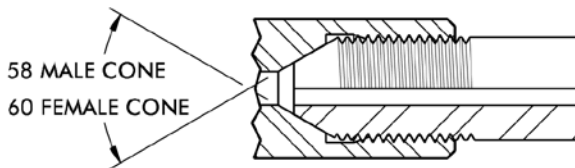
ACTUAL SIZE REFERENCE CHART

High Pressure (HP)
(Single Piece Style)

High Pressure (HP)
(Gland, Collar & Tubing)

HIGH PRESSURE LANCE (HP LANCE) CONNECTION TYPES

- This connection has the same geometry and threads as a standard high pressure tubing connection with the exception that right-hand threaded tubes are available.
- Male tubing is inserted directly into a female connection without the use of a gland and collar.
- Used in tube cleaning operations where standard connections are too large in diameter.



SIZE	CONNECTION THREAD	RECOMMENDED TORQUE	
		ft-lbs	N-m
1/4" HP Lance LH	1/4"-28UNF-LH	15	20
1/4" HP Lance RH	1/4"-28UNF-RH		
3/8" HP Lance LH	3/8"-24UNF-LH	20	27
3/8" HP Lance RH	3/8"-24UNF-RH		
9/16" HP Lance LH	9/16"-18UNF-LH	25	34
9/16" HP Lance RH	9/16"-18UNF-RH		

ACTUAL SIZE REFERENCE CHART

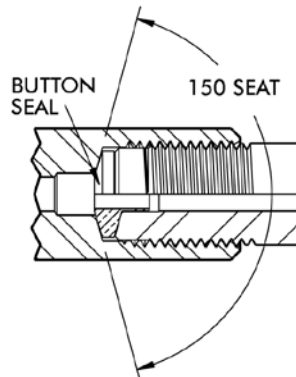
High Pressure Lance
Left Hand Threads
"HP Lance LH"

High Pressure Lance
Right Hand Threads
"HP Lance RH"

BUTTON SEAL

- Utilizes an inexpensive button-style seal which absorbs abuse and wear, preventing damage to the seating surfaces of more costly components.
- Used in the SP-40 Tornado Gun, Multi-Mode Valve, and in some automated lancing systems.

CONNECTION THREAD	RECOMMENDED TORQUE	
	ft-lbs	N-m
9/16" - 18UNF	40	54

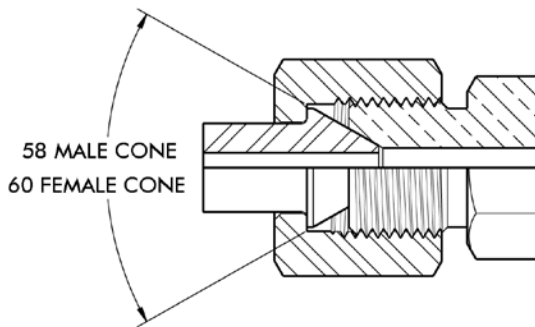


ACTUAL SIZE REFERENCE CHART

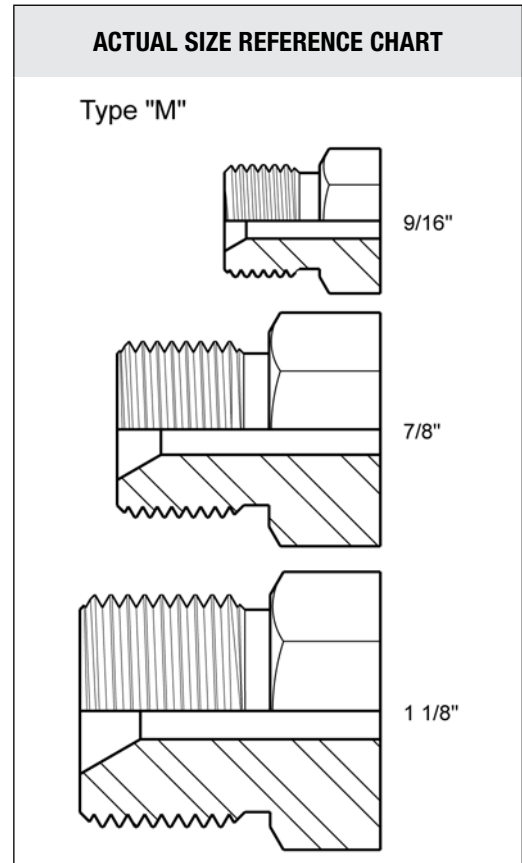
9/16" Button Seal

TYPE M CONNECTION TYPES

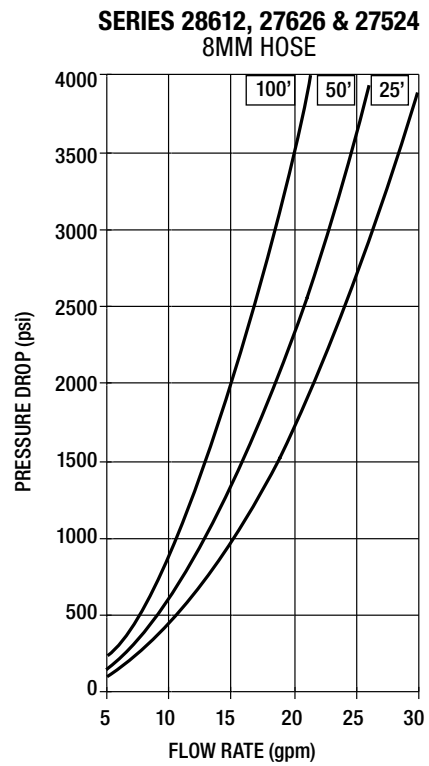
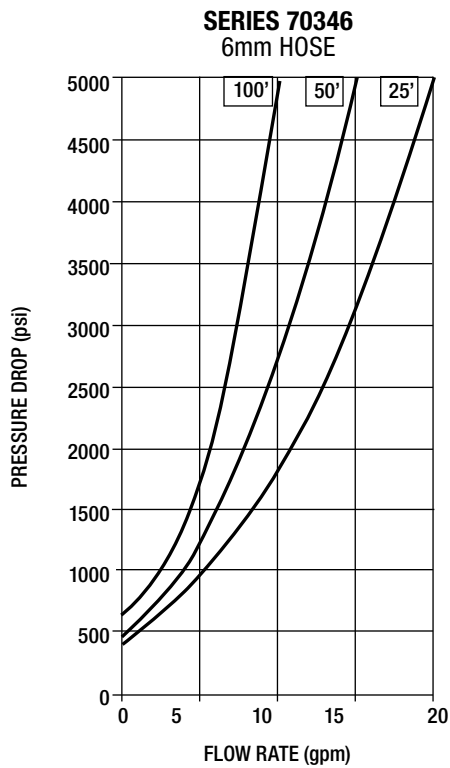
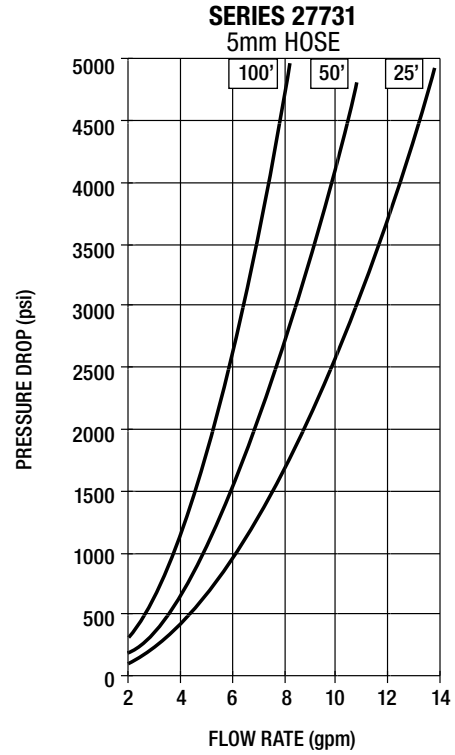
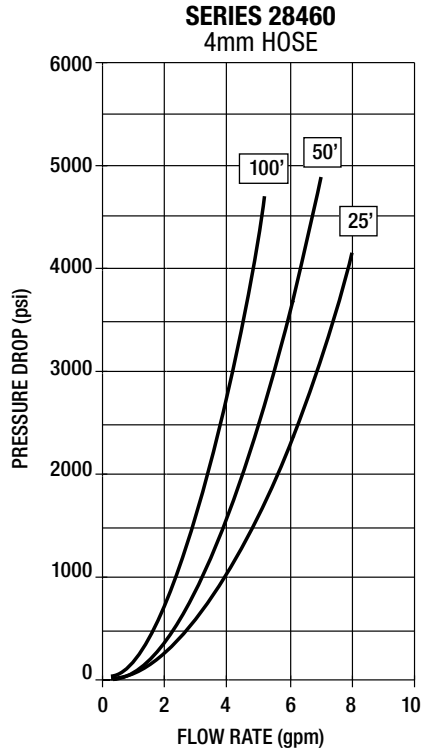
- Designed for fast, simple connection of waterblast hoses and lances.
- Male conical seat protected from damage by the hose swivel nut.
- Unlike high pressure connections, the seating surfaces do not rotate against each other when connections are made, resulting in a more reliable, longer lasting connection.



SIZE	CONNECTION THREAD	TUBING THREAD* LEFT-HAND	RECOMMENDED TORQUE	
			ft-lbs	N-m
9/16" Type M	M9	9/16"-18UNF	30	41
7/8" Type M	M14	7/8"-14UNF	60	81
1 1/8" Type M	M18	1 1/8" -12UNF	90	163

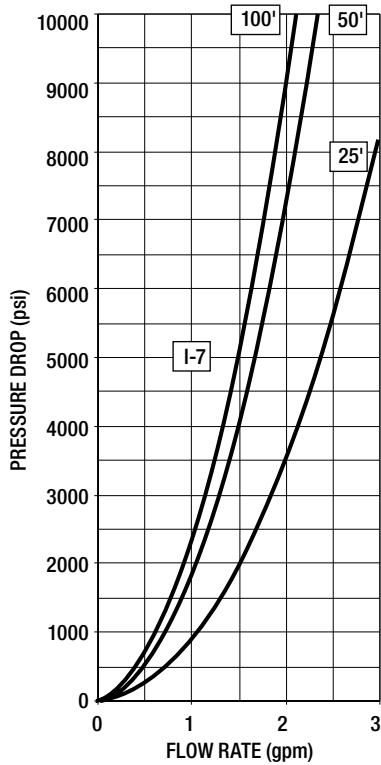


HOSE & FLEX LANCE
PRESSURE DROP DATA

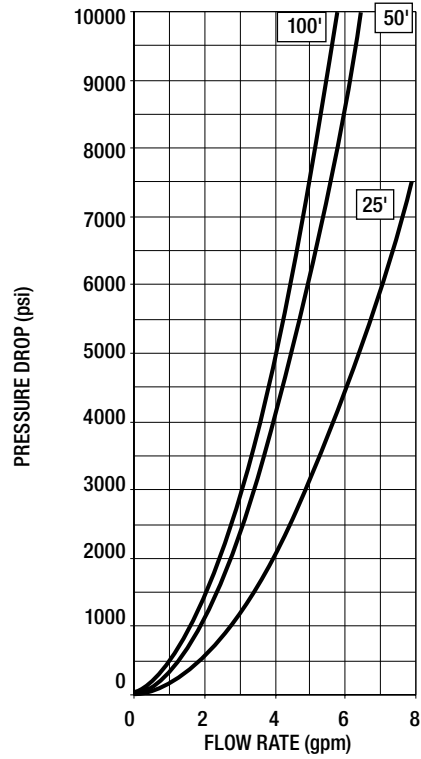


RIGID LANCE
PRESSURE DROP DATA

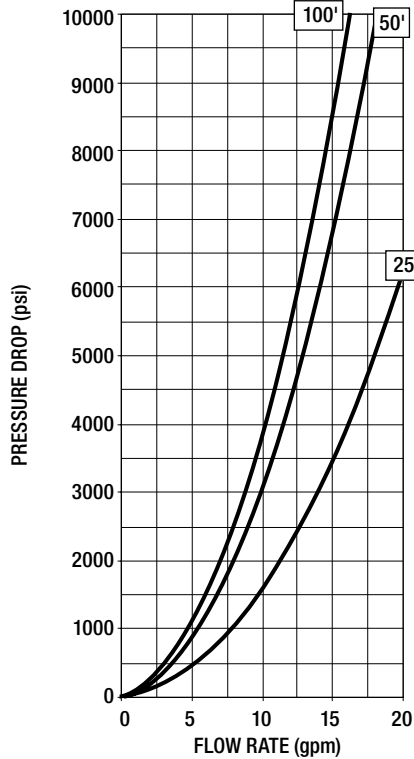
1/4" OD X .083" ID TUBING



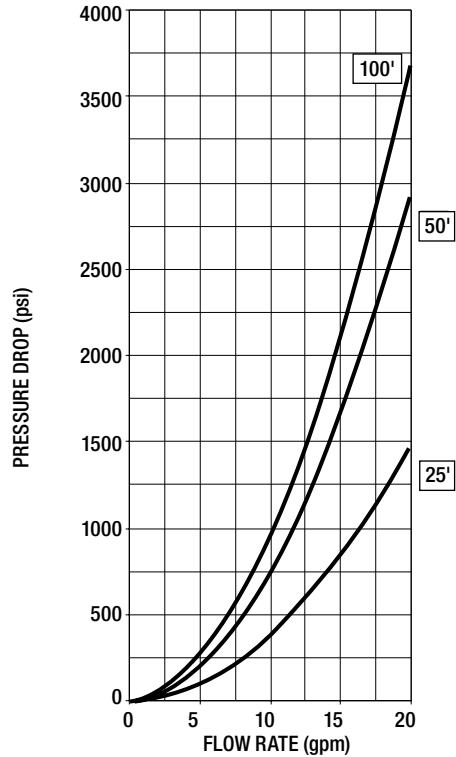
3/8" OD x .125" ID TUBING



9/16" OD X .188" ID TUBING



9/16" OD X .250" ID TUBING





THREADING AND CONING TOOLS HP CONNECTIONS

- Coning tool assemblies include tool as well as cutter and collet specific to the connection size and type needed.
- Threading tool assemblies include tool (consisting of housing and handle) as well as die and guide bushing specific to connection size needed.

NOTE:

- 3/4" & 3/8" coning tools use the same tool with differing cutters & collets.
- 9/16" coning tools use the same tool with differing cutters.
- All threading tool assemblies include LH die and all use the same handle and housing.

CONING

CONNECTION TYPE	CONING TOOL AY	CONING CUTTER	CONING COLLET
1/4" HP	71079	71085	71088
3/8" HP	71080	71086	71089
9/16" HP	71081	71087	71090

THREAD

CONNECTION TYPE	THREATH TOOL AY	LH DIE	RH DIE	BUSHING
1/4" HP	71091	70192	71095	71097
3/8" HP	28783	71093	71096	71098
9/16" HP	28872	71094	28873	71099