

**SPECIFICATIONS**

Max Pressure	5,800 PSI
Max Flow	12.0 GPM
Max Temp	185° F
Inlet Port Size	1/4" NPT-F or 1/2" NPT-F
Length	4.27"
Weight	0.75 lbs.

Materials	Tungsten Carbide, Stainless Steel Urethane
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FEATURES

- TUNGSTEN CARBIDE NOZZLE
- IDEAL FOR HYDRO EXCAVATION
- EXTREMELY RELIABLE
- STAINLESS STEEL COMPONENTS
- EASY MAINTENANCE

PART NUMBERS

PART NUMBER	NOZZLE SIZE	INLET
ZREX14025	#2.5	1/4" NPT-F
ZREX14030	#3.0	1/4" NPT-F
ZREX14035	#3.5	1/4" NPT-F
ZREX14040	#4.0	1/4" NPT-F
ZREX14045	#4.5	1/4" NPT-F
ZREX14050	#5.0	1/4" NPT-F
ZREX14055	#5.5	1/4" NPT-F
ZREX14060	#6.0	1/4" NPT-F
ZREX14065	#6.5	1/4" NPT-F

PART NUMBER	NOZZLE SIZE	INLET
ZREX12025	#2.5	1/2" NPT-F
ZREX12040	#4.0	1/2" NPT-F
ZREX12045	#4.5	1/2" NPT-F
ZREX12050	#5.0	1/2" NPT-F
ZREX12055	#5.5	1/2" NPT-F
ZREX12060	#6.0	1/2" NPT-F
ZREX12065	#6.5	1/2" NPT-F
ZREX12070	#7.0	1/2" NPT-F
ZREX12080	#8.0	1/2" NPT-F
ZREX12100	#10.0	1/2" NPT-F



FLOW CHART

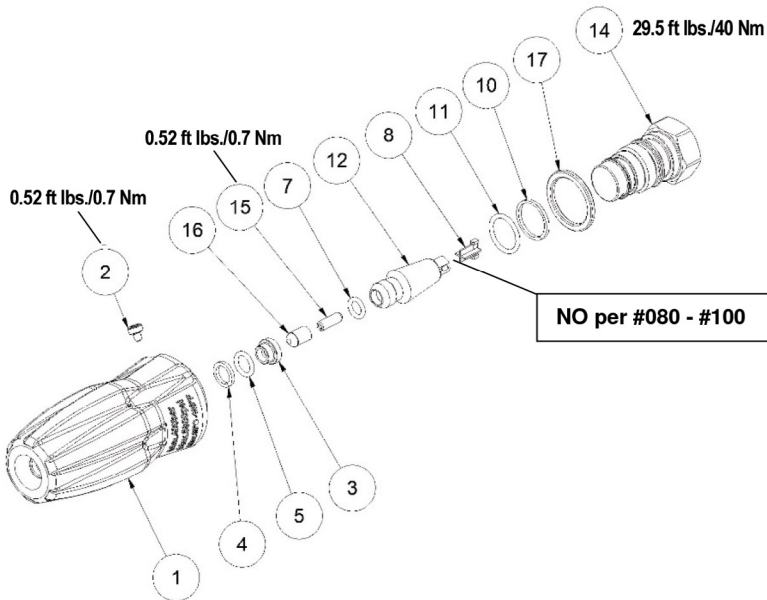
Orifice Size	PRESSURE (PSI)													
	1,450	1,812.5	2,175	2,537	2,900	3,262	3,626	3,987	4,351	4,712	5,075	5,437	5,800	
#025	1.47	1.69	1.84	1.98	2.11	2.24	2.37	2.50	2.61	2.72	2.82	2.90	3.01	
#030	1.79	2.00	2.22	2.37	2.56	2.72	2.85	2.98	3.11	3.24	3.38	3.48	3.61	
#035	2.11	2.35	2.58	2.77	2.98	3.17	3.32	3.48	3.64	3.80	3.93	4.09	4.22	
#040	2.40	2.69	2.95	3.17	3.70	3.61	3.80	3.98	4.17	4.33	4.49	4.67	4.80	
#045	2.69	3.03	3.30	3.59	3.83	4.06	4.27	4.49	4.70	4.88	5.07	5.25	5.41	
#050	11.4	3.35	3.69	3.98	4.25	4.51	4.75	4.99	5.20	5.41	5.62	5.83	6.02	
#055	3.01	3.69	4.06	4.38	4.67	4.96	5.23	5.49	5.73	5.97	6.20	6.41	6.60	
#060	3.61	4.04	4.41	4.78	5.09	5.41	5.70	5.99	6.26	6.52	6.76	7.00	7.23	
#065	3.90	4.38	4.78	5.17	5.03	5.86	6.18	6.49	6.78	7.05	7.31	7.58	7.81	
#070	4.20	4.77	5.15	5.57	5.94	6.31	6.65	7.00	7.29	7.60	7.89	8.16	8.42	
#080	4.80	5.38	5.89	6.39	6.81	7.23	7.60	8.00	8.34	8.69	9.00	9.32	9.64	
#100	6.02	6.73	7.37	7.97	8.50	9.03	9.51	9.98	10.43	10.85	11.25	11.65	12.04	

For correct use, the delivery of nozzle must not exceed 95% of the pump delivery.

Zone for use of lances without shoulder support (reaction less than 33 ft. lbs.)

Zone for use of lances with shoulder support (reaction greater than 33 ft. lbs.)

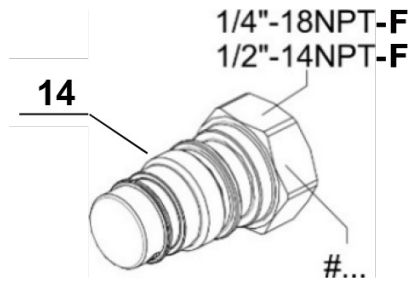
PARTS LIST



No.	Part No.	Description	Qty.
1	10102102	Body	1
2	99070200	Screw	1
3	10093607	Seat	1
4*	90503300	O-ring	1
5*	90357800	Anti-extrusion Ring	1
7*	90357400	O-ring	1
8*	10045351	Vane	1
10*	90508500	Anti-extrusion Ring	1
11*	90359100	O-ring	1
12*	10745701	Rotor Assembly	1
14	See Chart	Inlet Nipple	1
15*	See Chart	Nozzle	1
16*	See Chart	Rotor Tip	1
17	10095766	Seating Ring	1
*	See Below	Repair Kit	

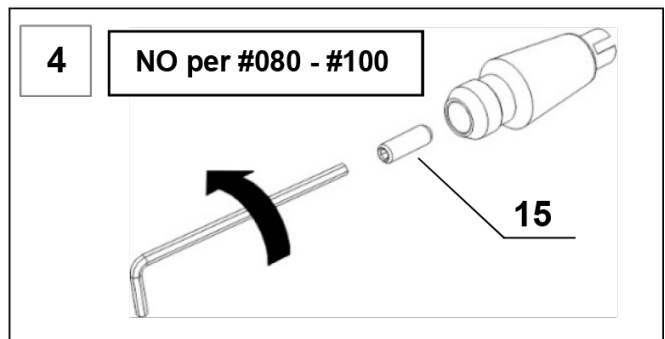
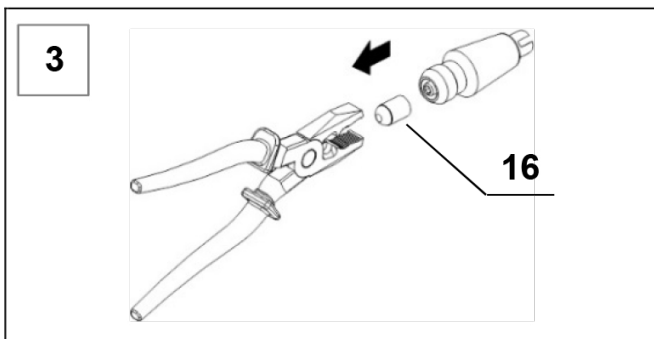
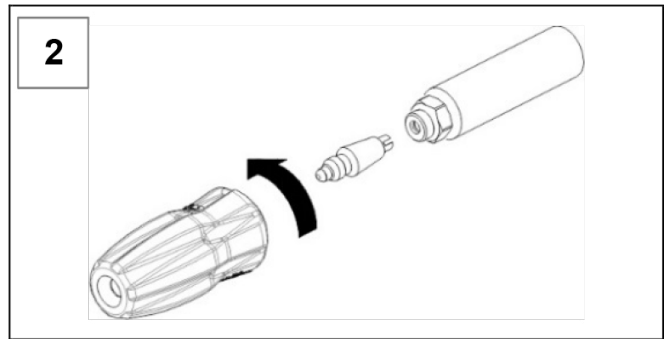
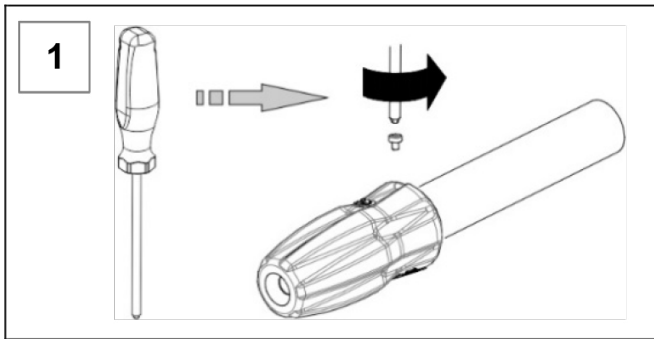
Nozzle Repair Kits	
Part No.	Description / Orifice Size
KZR025	Repair Kit, #2.5
KZR030	Repair Kit, #3.0
KZR035	Repair Kit, #3.5
KZR040	Repair Kit, #4.0
KZR045	Repair Kit, #4.5
KZR050	Repair Kit, #5.0

Nozzle Repair Kits	
Part No.	Description / Orifice Size
KZR055	Repair Kit, #5.5
KZR060	Repair Kit, #6.0
KZR065	Repair Kit, #6.5
KZR070	Repair Kit, #7.0
KZR080	Repair Kit, #8.0
KZR100	Repair Kit, #10.0



INLET NIPPLE							
1/4" NPT-F Inlet			1/2" NPT-F Inlet				
Size	Nipple (14)	Nozzle (15)	Rotor (16)	Size	Nipple (14)	Nozzle (15)	Rotor (16)
#025	10095866	98660500	10093707	#025	10094366	98660500	10093707
#030	10093966	98661500	10093707	#030	10096066	98661500	10093707
#035	10093966	98667400	10093707	#035	10096066	98667400	10093707
#040	10094066	98669000	10093707	#040	10096166	98669000	10093707
#045	10094199	98672500	10093707	#045	10096266	98672500	10093707
#050	10094166	98678000	10093707	#050	10096266	98678000	10093707
#055	10094266	98682000	10093707	#055	10096366	98682000	10093707
#060	10095966	98691500	10093707	#060	10094466	98691500	10093707
#065	10095966	98693500	10093707	#065	10094466	98693500	10093707
#070	10097066	98696300	10093707	#070	10094566	98696300	10093707
#080	10097466	---	10098207	#080	10097666	---	10098207
#100	10097566	---	10098307	#100	10097766	---	10098307

ROTOR CHECK AND NOZZLE REPLACEMENT



INSTRUCTIONS AND IMPORTANT INFORMATION

THIS DOCUMENT PROVIDES THE INSTRUCTIONS FOR THE INSTALLATION, USE AND MAINTENANCE OF THE ROTATING NOZZLE, THEREFORE IT IS AN INTEGRAL PART OF THE NOZZLE ITSELF AND MUST BE READ CAREFULLY BEFORE ANY USE AND KEPT WITH CARE.

STRICTLY COMPLY WITH THE INSTRUCTIONS CONTAINED IN THIS DOCUMENT IN VIEW OF A SAFE AND EFFECTIVE USE OF THE PRODUCT. FAILURE TO COMPLY WITH THESE INSTRUCTIONS MIGHT CAUSE EARLY FAILURE AND RESULT IN SITUATIONS OF DANGER IN ADDITION TO VOIDING THE WARRANTY.

1. GENERAL INFORMATION

1.1 Since the rotation nozzle is an accessory to be used together with a lance being connected to a high pressure water system, it is necessary to pay the utmost attention when installing and in particular when using it, also in relation to the type of system.

1.2 In order to use the rotating nozzle, it is necessary to connect it to a lance end by means of the 1/4" NPT-F fitting. Manually screw the nozzle as much as possible onto the lance end, then tighten by means of a wrench (apply another 2 or 3 turns). In order to ensure the seal, use a proper sealant on the thread.

1.3 Use soft and filtered water only. In case of salt water and/or of water containing solid particles of a size exceeding 360µm, the internal components of the nozzle would be subject to quick wear; furthermore this might compromise the correct functioning of the nozzle. Additional agents can be used in the water, provided that they are delicate, biodegradable and always complying with the regulations in force in the country where the nozzle is used.

1.4 The nozzle must be assembled and used by qualified staff only, who must have the required skills to handle high pressure systems and be informed of the functioning and of the behavior of the rotating nozzle.

WARNING: The high pressure water jet generated by the rotating nozzle can be harmful if improperly used. Do not use the rotating nozzle in case there are people and/or animals within its range of action.

1.5 When operating the nozzle to reach the pressure for normal working conditions, take care to direct it downwards.

1.6 **During use, never exceed the maximum values of pressure, flow rate and temperature as stated in this document and indicated on the nozzle.**

1.7 From time to time, it is necessary to check that the parts which are under pressure do not show cracks and/or leakages; the frequency of this check depends on the actual use. Mainly check the wear of the rotor and of the nozzle which is contained inside the rotor.

1.8 Maintenance and repair must be carried out by qualified and authorized staff only. **Replace the nozzle parts with original spare parts only.**

1.9 The rotating nozzle is entirely made of non-toxic and safe materials; however, in case of disposal, we suggest you do not dispose of it in the environment but take it to an authorized disposal center or contact General Pump Customer Service.

1.10 **The rotating nozzle shall not be tampered with for any reason and/or used for any purpose other than the use it has been designed for. In case of tampering, as to the product functioning and safety.**

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