The ZRMAX is a high pressure, rotating, zero-degree nozzle. The unique internal design allows aim-and-spray operation, even when cleaning overhead, and permits easy replacement of all wear parts. Sized according to flow rate, a ZRMAX is perfect for your toughest cleaning tanks.



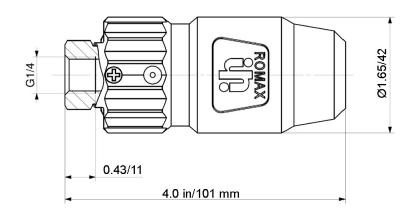
SPECIFICATIONS

Max Pressure	5,800 PSI
Max Flow	4.7 GPM
Max Temp	176º F
Inlet Port Size	G1/4" - F
Dimensions	Ø 1.65" O.D. x 4" Long
Weight	0.75 Lb.
Materials	Brass, Plastic, Ceramic, Buna-N

FLOW CHART

		Pressure (PSI)						
		1,450	2,175	2,900	3,625	4,350	5,075	5,800
ZRMAX440	GPM	2.4	2.9	3.4	3.7	4.1	4.4	4.7

DIMENSIONS







DNV.G





INSTRUCTIONS

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 FAULTS AND RESULT IN SITUA-TIONS OF DANGER, IN ADDITION TO VOIDING ANY WARRANTY.

1 - GENERAL INFORMATION

1.1 - Since the rotating nozzle mod. ZRMAX440 is an accessory to be used together with a lance being connected to a high pressure water system, it is necessary to pay the close attention when installing and 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 $\frac{1}{4}$ "-GAS. Manually screw the nozzle as much as possible onto the lance end, then tighten by with 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. Addition 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 disperse it in the environment but take it to an authorized disposal center or contact the nearest Authorized Service Center.

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, the manufacturer disclaims all responsibility as to the product functioning and safety.

2 - DECLARATION

The rotating nozzle ZRMAX440 has been designed and built in compliance with the general principles to be applied in order to meet with the aims of risk reduction during its intended use.

The installer or the manufacturer of the machinery/system to which the rotating nozzle is assembled are responsible for granting the safety and the compliance with any directives which may apply to the final product.

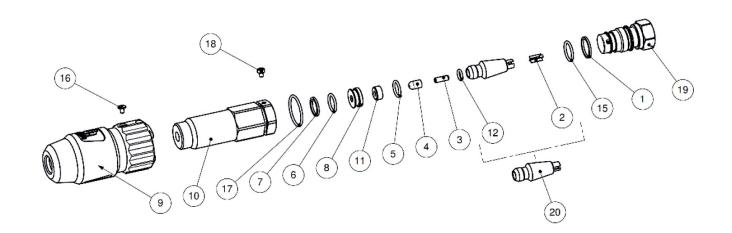


Ref 300338 Rev. C

GENERAL PUMP A member of the Interpump Group



PARTS LIST



No.	Part No.	Description	Qty.
1	90508500	Anti-extrusion Ring, Ø15.3 x 17.9 x 1.5	1
2	10045351	Valve	1
3	98667400	Nozzle	1
4	10045609	Tip, Rotor	1
5	90358400	O-ring, Ø10.82 x 1.78	1
6	90358900	O-ring, Ø12.42 x 1.78	1
7	90507500	Anti-extrusion Ring, Ø13 x 16 x 1.5	1
8	10060370	Support Seat	1
9	10102551	Cover, Red	1
10	10103070	Body	1
11	10045509	Seat	1
12	90357400	O-ring, Ø6.07 x 1.78	1
15	90359100	O-ring, Ø14 x 1.78	1
16	98190500	Plug, Black	1
17	90383700	O-ring, Ø15.54 x 2.62	1
18	99070200	Screw, M3 x 4	1
19	10105370	Inlet Nipple, G1/4 F	1
20	10056402	Rotor, Complete	1

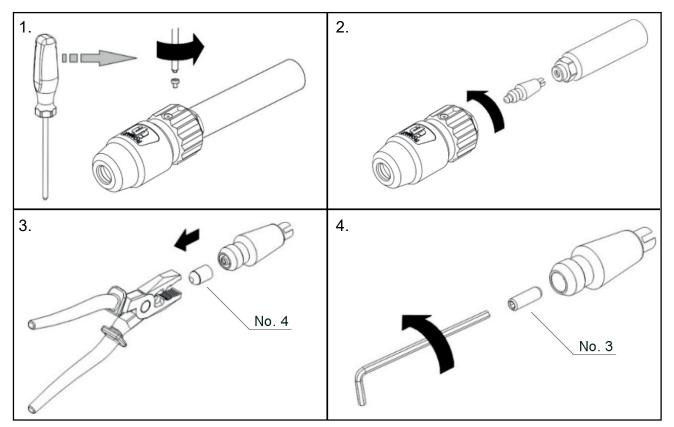
Torque Specs				
No.	Ft-lbs	Nm		
3	52	70		
16	52	70		
18	52	70		
19	29.5	40		



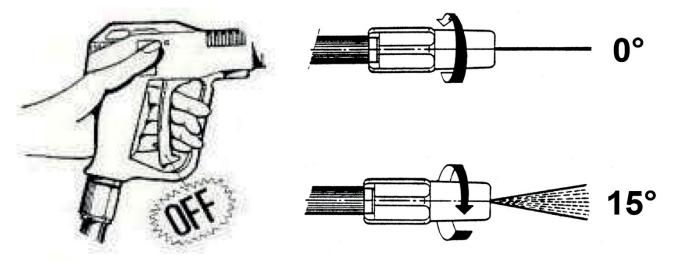
GENERAL PUMP A member of the Interpump Group



REPAIR INSTRUCTIONS

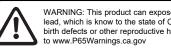


NOZZLE ADJUSTMENT



WARNINGS

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.



WARNING: This product can expose you to chemicals including lead, which is know to the state of California to cause cancer and birth defects or other reproductive harm. For more information, go

GENERAL PUMP 1174 Northland Drive • Mendota Heights, MN 55120 Phone: 651.686.2199 • Fax: 800.535.1745 • e-mail: sales@gpcompanies.com • www.generalpump.com

Ref 300338 Rev. C 02-25

