

Zeta Potential Mixer



- The static mixer for the cavitation of water – optimises coagulation and flocculation: ZPM stands for Zeta Potential Mixer and is a static mixer manufactured in 316L stainless steel or, Titanium for use in Seawater applications.
- The ZPM amplifies coagulation reactions for the conversion and precipitation of dissolved components into small particles. The ZPM provides the perfect mixing and turbulent environment necessary for coagulant as well as flocculant dosing.
- As the redox potential increases, the zeta potential decreases and coagulation as well as mechanical flocculation reactions are initiated.
- The ZPM is a cavitating static mixer, neutralising the electrical charge (Zeta Potential) on dissolved particles. Opposite charges attract and this causes coagulation and flocculation. As the zeta potential drops the redox potential of the water increases. Through ZPM's cavitation mechanism, the water is partially disinfected without the use of any chemicals.

Choose the size of the ZPM according to the pressure loss. Pressure loss should be between 0.1 – 0.2 bar.

ZPM Zeta Potential Mixer		Pressure loss ³		
Size	Connection ²	0.2 bar	0.3 bar	0.5 bar
DN 32	1" SK	5 m ³ /h	6 m ³ /h	7 m ³ /h
DN 40	1½" SK	10 m ³ /h	12 m ³ /h	15 m ³ /h
DN 50	2" SK	15 m ³ /h	23 m ³ /h	30 m ³ /h
DN 65	2½" SK	24 m ³ /h	30 m ³ /h	38 m ³ /h
DN 80	3" FL	40 m ³ /h	47 m ³ /h	63 m ³ /h
DN 100	4" FL	68 m ³ /h	83 m ³ /h	108 m ³ /h
DN 125	5" FL	100 m ³ /h	125 m ³ /h	165 m ³ /h
DN 150	6" FL	160 m ³ /h	200 m ³ /h	260 m ³ /h
DN 200	8" FL	175 m ³ /h	220 m ³ /h	290 m ³ /h
DN 250	10" FL	260 m ³ /h	325 m ³ /h	420 m ³ /h
DN 300	12" FL	385 m ³ /h	475 m ³ /h	500 m ³ /h

Notes:

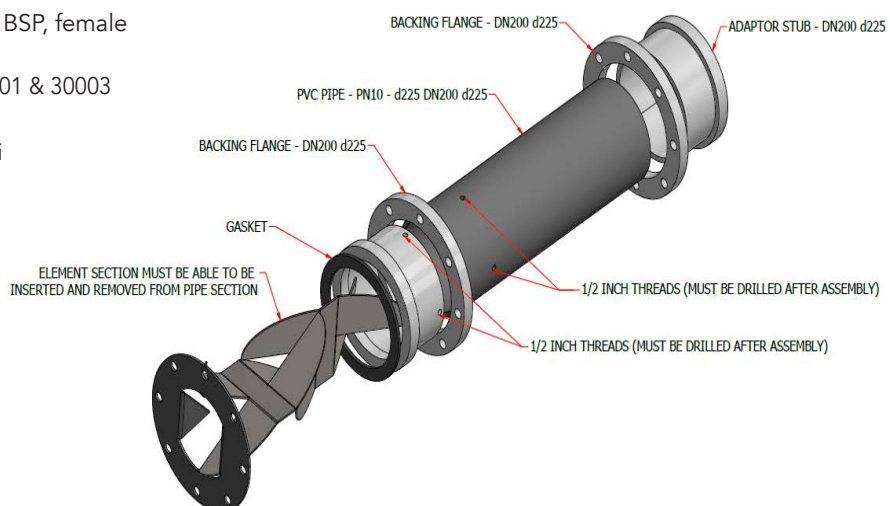
All ZPMs are equipped with 2 x ½" BSP, female threaded injection points

¹ While stock lasts. Replaced with 30001 & 30003

² SK = Socket / FL = flange

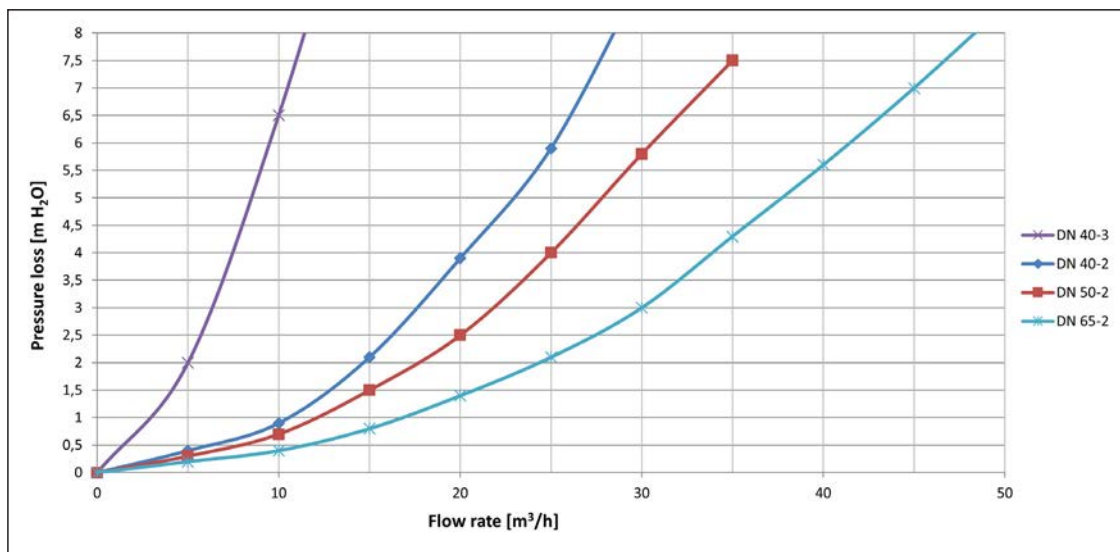
³ 1 bar ≈ 10 mWS ≈ 10 m H₂O ≈ 15 psi

Stainless Steel ZPM threaded connection

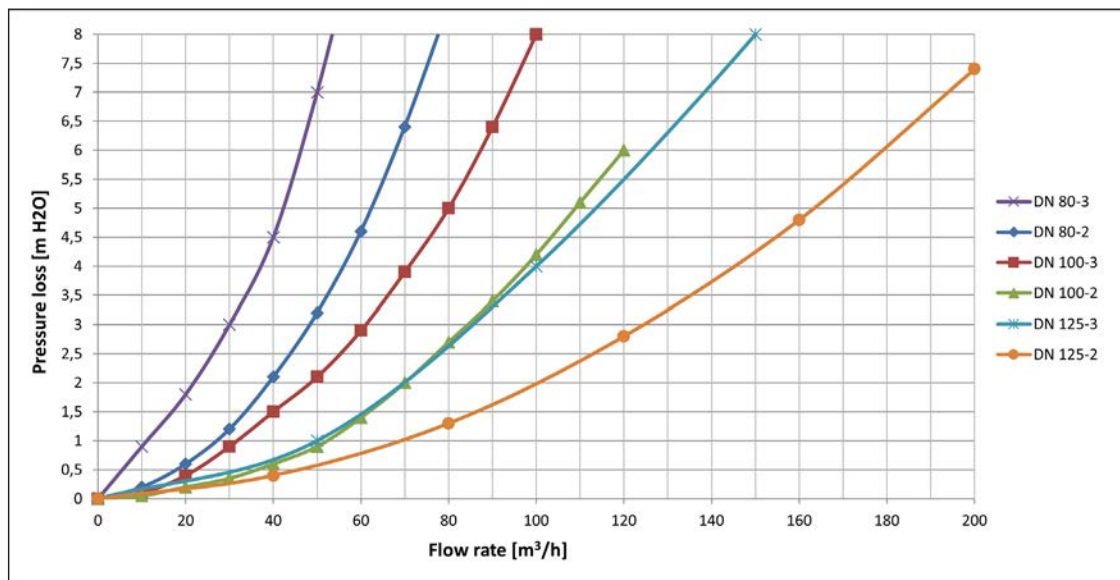


Zeta Potential Mixer

Pressure loss DN 40 - DN 65



Pressure loss DN 80 - DN 125



Pressure loss DN 150 - DN 300

