

Hurricane™ 3D

High Flow for Large Diameter Vessels



Patent 5,947,387

CyClean™ 3D

High Pressure for Hard Deposits



Patents 5,947,387 & 6,059,202

A 3D nozzle rotates jets to impact every surface of a vessel without being moved. Buy it to efficiently clean process vessels without putting people inside. Use it wherever possible because it works efficiently with almost no attention. So benefits include safety, thoroughness, and manpower; all of which mean dollar savings to the contractor.

Clean reactors, separators, heat exchanger heads, other process vessels without vessel entry

Thorough cleaning without careful positioning or movement

Avoid time and manpower wasting vessel entry precautions, let the 3D nozzle do the job.

Get the customer's plant back into production sooner.

- Durable stainless steel construction with high impact polyurethane protective covers
- Adjustable jet offset allows rejetting for a wide variety of pumps with no parts other than nozzle tips
- Hang from high pressure water hose, pulling ring, or positioning system

Specifications

Model	Hurricane™ 3D	CyClean™ 3D
Flow	15-80 gpm 55-300 lpm	10-40 gpm 38-150 lpm
Flow Rating	2.5 Cv	0.74 Cv
Pressure	2-12 Kpsi 140-800 bar	4-20 Kpsi 275-1380 bar
Power	18-560 HP 13-420 KW	23-465 HP 17-350 KW
Weight	29 lb 13.2 kg	23 lb 10.4 kg
Length	11.3 in. 29 cm	11.9 in. 30.2 cm
Inlet Connection	3/4 npt	3/4 MP
Cycle Time	2 - 10 min	2 - 10 min
Fits Through, Diam.	8 in. 20.3 cm	7 in. 17.8 cm

3D Nozzle Accessories



HC 088 Extension Kit
Recommended for vessels over 12 ft diameter.
18 or 36 in. - For **Hurricane™** only.

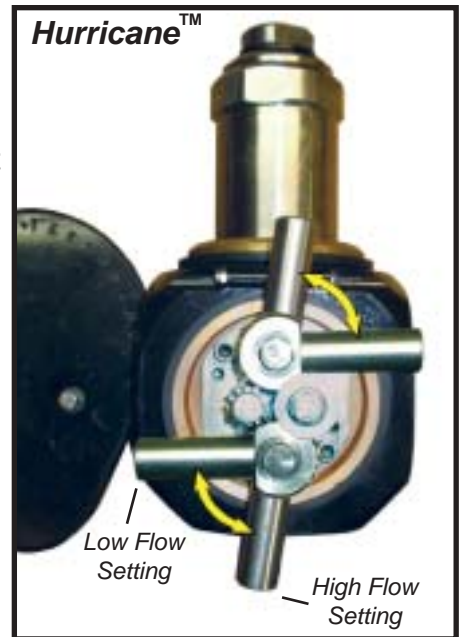


HC 100 SS Cage
For applications where debris or internal structures might disrupt 3D operation. For **Hurricane™** only.

Adjustable

Nozzle Arms

Allow 3D Nozzles to handle different pumps without expensive replacement parts. Just re-jet, reset, and go to work!



Jetting & Nozzle Arm Settings

Orifice ID in.	Hurricane™ 3D						CyClean™ 3D				Hose ID in.
	2000 psi	4000 psi	6000 psi	8000 psi	10000 psi	12000 psi	14000 psi	16000 psi	18000 psi	20000 psi	
.039							9/8.0	10/8.0	11/7.5	11/7.5	0.50
.042							11/7.5	12/7.0	12/6.5	13/6.0	
.047							13/6.0	14/5.5	15/5.0	16/5.0	0.75
.052							16/5.5	18/5.0	19/4.5	20/4.5	
.057				15/9.0	17/7.5	19/6.0	19/4.0	21/4.0	22/3.5	23/3.0	1.00
.063			16/8.0	19/6.0	21/4.5	23/4.5	24/3.5	26/3.0	27/3.0	29/2.5	
.069		16/9.0	19/6.0	22/5.0	25/4.0	27/3.5	28/3.0	30/2.5	32/2.5	34/2.5	
.075		18/8.0	23/6.0	26/4.0	29/3.0	32/3.0	32/2.5	34/2.5	37/2.5	39/2.0	
.082	16/9.0	22/6.0	28/4.0	32/3.0	36/2.5	39/2.0	37/2.5	40/2.5	42/2.0		
.090	19/9.0	27/5.5	33/3.0	38/2.5	43/2.0	47/2.0	42/2.0	45/2.0			
.098	22/8.0	32/4.0	39/3.0	45/2.5	50/2.0	55/1.5					
.106	26/7.0	37/3.0	45/2.5	52/2.0	58/1.5	63/1.5					
.115	30/5.0	42/2.5	52/2.0	60/1.5	68/1.5	75/1.0					
.125	35/3.5	49/2.0	60/1.5	71/1.5	79/1.0						
.135	39/3.0	55/2.0	70/1.5	81/1.0							
.145	44/2.5	64/1.5	79/1.0								
.155	48/2.0	72/1.5									
.165	56/1.5	79/1.0									