

卫生清洗球

Sanitary Cleaning Ball

YODSN 永德信®



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应用 / Applications

- 旋转式清洗球：是一种旋转喷头，它使用清洁剂对储罐进行全面清洗和喷射。由于此设备在低压下使用的洗涤液量较少，因此它是传统固定喷球的一种有效替代产品。旋转头中采用双滚珠轴承，这使该类型清洗球系列适用于所有卫生级和工业级清洗应用领域，包括储罐、反应器和容器等所有卫生级和工业级用品的清洗任务。
- 固定式清洗球：是食品和饮料行业中一种用来清洗储罐的固定喷球。固定喷球用于要求较低的清洁任务。
- Rotary cleaning ball: it's a kind of rotary sprayer, which use cleanser to spray strongly and clean inside of the tank. It is one which is effective replace the traditional fixed cleaning ball for it can be used under low pressure with less detergent. The rotary sprayer use dual ball bearing, so it is suitable for the sanitary and industrial application, include tank, reactor, vessel etc.
- Fixed cleaning ball: it's a type of fixed spray ball of cleaning storage tank. The fixed spray ball is use to cleaning task with lower requirement.

技术参数 / Technical Data

- 重量：视具体规格
- 润滑：通过清洗液自润滑
- 工作压力：1-3Bar
- 最高工作温度：95° C
- 最高环境温度：140° C
- 湿润半径：最大 3m
- 喷射清洗半径：最大有效半径 2m
- 接口：焊接式、快装式和螺纹式
- Weight: As per specification
- Lubrication by the cleaner itself.
- Working pressure: 1-3Bar
- Max. working temperature: 95°C
- Max. ambient temperature: 140°C
- Moist radius: max. 3M
- Inject cleaning radius: max. effective radius 2M
- Connection: welded, clamped, threaded

材料 / Material

- 接头：304/316L
- 喷头：304/316L
- Ferrule: 304/316L
- Sprayer: 304/316L



工作原理 / Operating principles

- 旋转式清洗球：清洗液通过自身的动力使清洗球喷头旋转，扇形喷流在整个储罐或反应釜中形成涡流，由此有效的清除留在容器表面的残余产品，达到清洁作用。
- 固定式清洗球：清洗球通过清洗球的喷头小口，形成向四周喷射的喷流，从而清除留在容器表面残余产品，达到清洁作用。
- Rotary cleaning ball: The cleaning solution make the sprayer rotary by it's motive power, then the fan jet created the whole tank and reactor with vortex. In that way, clean the remains of vessel surface effectively, reach the function of cleaning.
- Fixed cleaning ball: the cleaning ball is through the sprayer small hole, create the injection all around. In that way, clean the remains of vessel surface effectively, reach the function of cleaning.

设计标准 / Design Standard

- Yodsn 生产的清洗球系列均符合 DIN、3A、SMS、ISO/IDF 等生产标准。
- Yodsn have the standard of cleaning ball series as follows: DIN, 3A, SMS, ISO/IDF

对于简单的储罐清洗
For Simply Tank Cleaning

应用 / Applications

- LKRT 是食品和饮料行业中一种用来清洗储罐的固定喷球。固定喷球用于要求较低的清洁任务。
- Rotary cleaning ball: it' s a kind of rotary sprayer,which use cleanser to tank. It is one which is effective

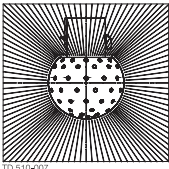
材料 / Material

LKRK	
外壳和喷头装配:	304/316L
光洁度:	镜面

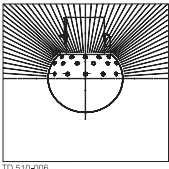


LKRK 的喷流型式：

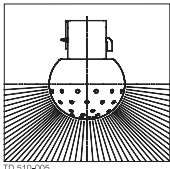
- 64 毫米喷球，带有 2 毫米的喷孔。
- 94 毫米喷球，带有 2 毫米或 3 毫米的喷孔。
- (参见流量图表) 。



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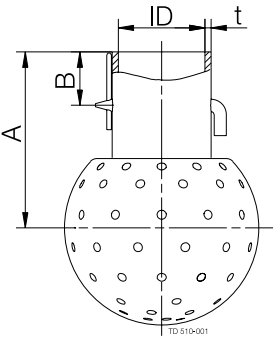
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LKRK 连接：

- LKRK 64 类型： ISO 接管： 25 毫米。
DIN 接管： DN25-1 和 1 系列管型。

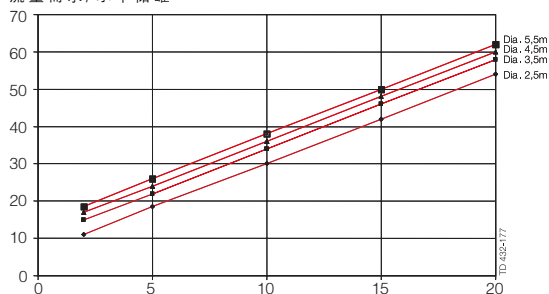
- LKRT 94 类型： ISO 接管： 51 毫米。
DIN 接管： DN50-1 和 2 系列管型。

OD= 外径。
ID= 内径。

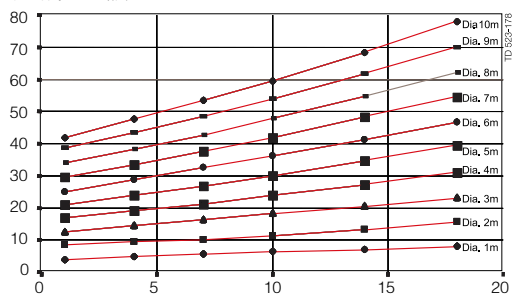


尺寸 (mm/INCH) LKRK		
尺寸	64(1")	94(2")
A	58(2.28)	77.5(3.05)
B	17.5(0.69)	22.5(0.89)
US 管件 ID	25.7(1.01)	51.6(2.01)
ISO 管件 OD/ID/t	28.5/25.5/1.5(1.12/1.00/0.06)	54.4/51.4/1.5(2.14/2.02/0.06)
DIN 管件 OD/ID/t 管道系列 1	32.5/28.5/2(1.28/1.12/0.08)	54.4/52.4/1(2.14/2.06/0.04)
DIN 管件 OD/ID/t 管道系列 2	34.2/29.5/2.35(1.35/1.16/0.09)	57.4/53.4/2(2.26/2.10/0.08)
重量, kg(1b)	0.2(0.4)	0.3(0.7)

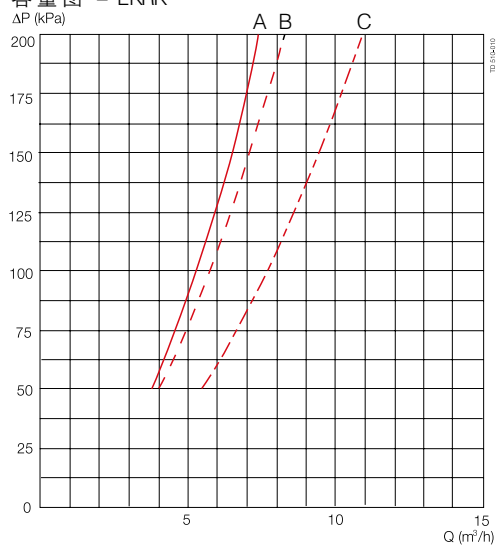
流量需求 / 水平储罐



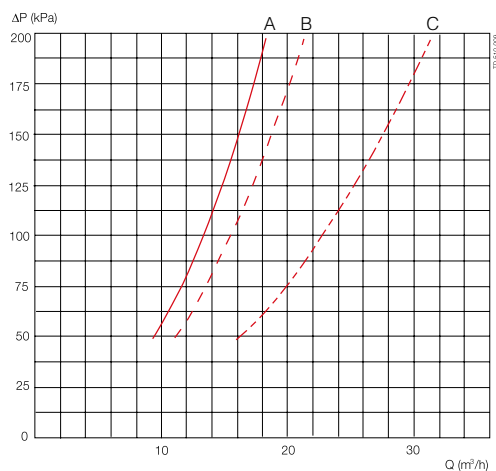
流量需求 / 垂直储罐



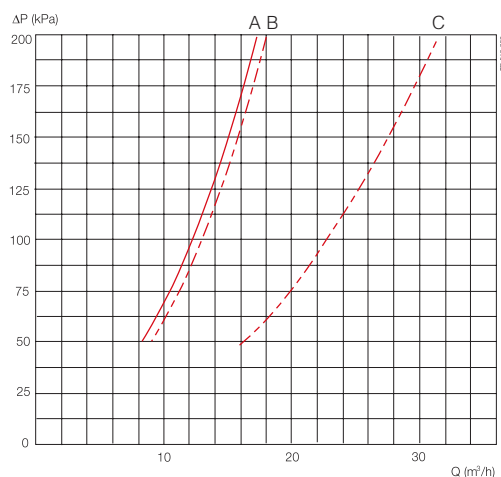
容量图 - LKRK



LKRK64 类型，带有 2mm 的喷孔：
已钻底孔，已钻顶孔，已钻全部喷孔



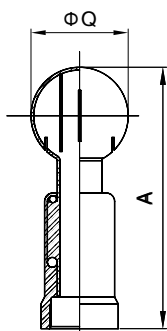
LKRK94 类型，带有 2mm 的喷孔，51mm(DN50)
管件：已钻底孔，已钻顶孔，已钻全部喷孔



LKRK94 类型，带有 2mm 的喷孔，
51mm(DN50) 管件：已钻底孔，已钻顶孔，已钻全部喷孔。

旋转式清洗球

Rotary Cleaning Ball



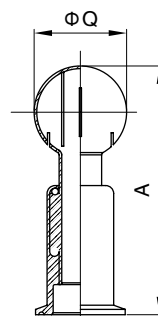
NO.1117001

螺纹式 Threaded

SIZE	A	Q
1"	135	53
1 1/4"	165	53
1 1/2"	170	63
2"	195	76
2 1/2"	215	910

Technical Parameter

SIZE	Pressure (bar)	Cleaning radius (m)	Fluxation m³/h
1"~1 1/2"	2	1.25	12
2"	2	1.5	38
2 1/2"	2	2.0	38



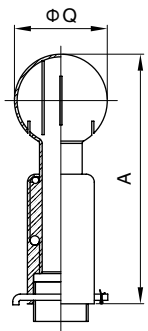
NO.1117002

卡箍式 Clamped

SIZE	A	Q
1"	140	53
1 1/4"	140	53
1 1/2"	140	53
2"	175	63
2 1/2"	215	76

Technical Parameter

SIZE	Pressure (bar)	Cleaning radius (m)	Fluxation m³/h
1"~1 1/2"	2	1.25	12
2"	2	1.5	38
2 1/2"	2	2.0	38



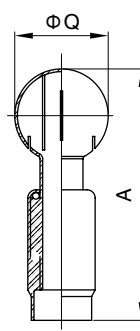
NO.1117003

插销式 Bolted

SIZE	A	Q
1"	140	53
1 1/4"	140	53
1 1/2"	140	53
2"	200	63
2 1/2"	190	76

Technical Parameter

SIZE	Pressure (bar)	Cleaning radius (m)	Fluxation m³/h
1"~1 1/2"	2	1.25	12
2"	2	1.5	38
2 1/2"	2	2.0	38



NO.1117004

焊接式 Welded

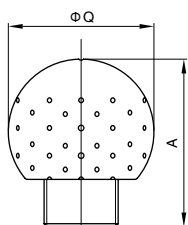
SIZE	A	Q
1"	135	53
1 1/4"	135	53
1 1/2"	135	53
2"	175	63
2 1/2"	200	76

Technical Parameter

SIZE	Pressure (bar)	Cleaning radius (m)	Fluxation m³/h
1"~1 1/2"	2	1.25	12
2"	2	1.5	38
2 1/2"	2	2.0	38

固定式清洗球

Fixed Cleaning Ball



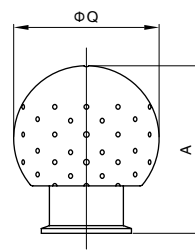
NO.1117005

螺纹式 Threaded

SIZE	A	Q
1"	72.0	63.0
1 1/4"	85.0	76.0
1 1/2"	87.0	76.0
2"	102.0	91.0

Technical Parameter

SIZE	Pressure (bar)	Cleaning radius (m)	360° /180° Fluxation m³/h
1"	2.5	1.0~1.25	17/10
1 1/4~1 1/2"	2.5	1.25~1.75	23/17
2"	3.5	2.0~3.0	55/38
2 1/2"	3.5	3.0~3.5	58/41



NO.1117006

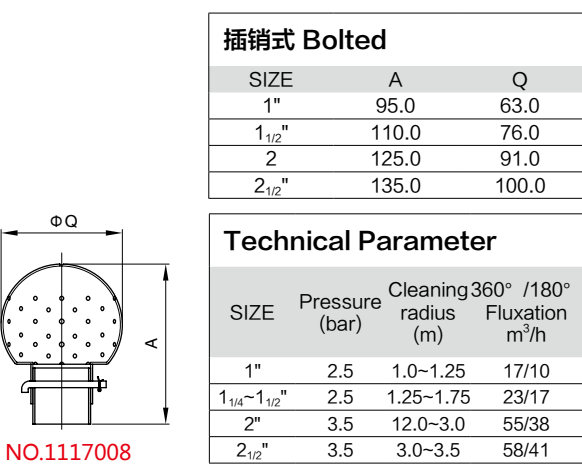
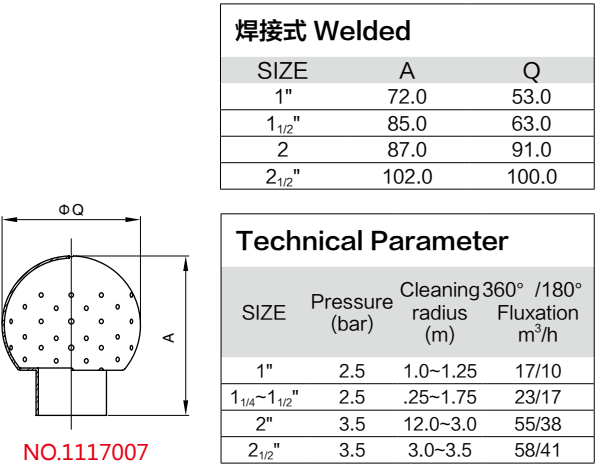
卡箍式 Clamped

SIZE	A	Q
1"	80.0	63.0
1 1/4"	93.0	76.0
1 1/2"	93.0	76.0
2"	108.0	91.0
2 1/2"	115.0	100.0

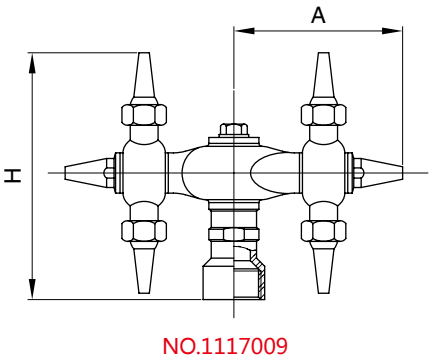
Technical Parameter

SIZE	Pressure (bar)	Cleaning radius (m)	360° /180° Fluxation m³/h
1"	2.5	1.0~1.25	17/10
1 1/4~1 1/2"	2.5	1.25~1.75	23/17
2"	3.5	2.0~3.0	55/38
2 1/2"	3.5	3.0~3.5	58/41

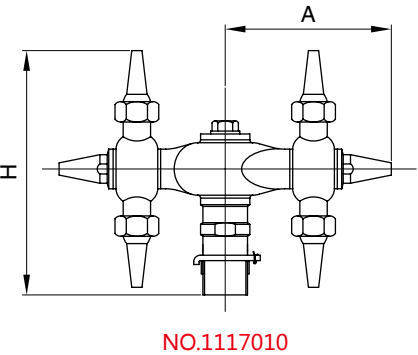
固定式清洗球 Fixed Cleaning Ball



牛角式清洗球 Horn Formula Cleaning Ball



螺纹式 Threaded			Technical Parameter		
SIZE	A	H	Pressure (bar)	Cleaning radius (m)	Fluxation m ³ /h
1"	118.0	165.0	1.5~2.0	2.0~3.0	23
1 1/4~1 1/2"	142.0	189.0	1.8~2.5	2.5~3.0	38
2"	145.0	191.0	2.5~3.0	3.5~4.0	60



插销式 Bolted			Technical Parameter		
SIZE	A	H	Pressure (bar)	Cleaning radius (m)	Fluxation m ³ /h
1"	118.0	175.0	1.5~2.0	2.0~3.0	23
1 1/4~1 1/2"	142.0	200.0	1.8~2.5	2.5~3.0	38
2"	145.0	205.0	2.5~3.0	3.5~4.0	60

人孔

Man Hole

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