# **SCRAP-VAC** (Sludge Removal Technologies )



## The Best Technologies & Service **DongYang Water Technologies**

# **Presentation Agenda**

## **Company Profile**

## **Sludge Removal Technologies**





2. Sludge Removal Technologies



**Company : Dong Yang Water Technologies Co., Ltd. Representative : Heung yeon Won** Date of foundation : 1986. 06. 01 Head office, plant : 38, 1315 Beon-gil, Hoguk-ro, Pocheon city, Gyeonggi-do Technology research institute : 672, Samyang-ro, Gangbuk-gu, Seoul **Product line : Chemical feeding system(dry, wet type), Inclination plate settler** Water treatment system including suction type sludge collection, removal system, Flocculation, Coagulation system, Etc. Contact : Tel. 82-2-996-9231 Fax. 82-2-996-9233 e-mail. soho996@chol.com www.dowatech.kr Corporate authentication : ISO9001, ISO14001, Venture business, Technology innovation type SMEs(INNO-BIZ) etc. **Product authentication : Performance authentication(SMBA)**, Excellent product authentication(PPS) Major patent : Precipitation complex chemical input system Upstream inclination plate precipitation system and many others,











#### High Efficiency Sludge Removal Technologies

#### Suction Type Sludge Collector(SCRAP-VAC)







#### High Efficiency Sludge Removal Technologies

### Suction Type Sludge Collector(SCRAP-VAC)







#### Improvement of Existing sludge collector demerit

- Sludge bridge and rabbit hole phenomenon
- Collector Driven Load phenomenon by sludge jamming
- Aggravation of treated water quality by sludge decomposition and re-suspension phenomenon



• Existing sludge collector





#### Scraper for sludge collection

- Scraper application to 90<sup>o</sup> bending phenomenon
- Change of scraper form depending on movement direction(90<sup>o</sup> switch)



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#### Sludge discharge facility and method

- Discharge of sludge by using head difference based siphon or self priming pump
- Sludge collector and discharger are built in one system.





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#### Sludge removal capacity

- Confirmed that sludge collected efficiently based on process operation.
- Confirmed that sludge in front of scraper was discharged efficiently from sludge suction pipe.
- Confirmed that sludge at the back side of scraper was discharged efficiently.







- Sludge discharge hopper & drawing v/v not required
- Existing Suction type sludge collector applied by substitute facility
- Realization of facility miniaturization by application of small collection, small discharge method
- Reduction of linked process load by control of effluence quantity

- Reduction of initial project cost
- Improvement of moisture content and effluence problem
- Increase of price competitiveness through cost reduction
- Efficiency increase of concentration process and dehydration process



# Thank you for your attention!

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