

EVOLUTION IN DREDGING

The new section of our website entirely dedicated to international dredging is coming soon. A preview combining decades of solid engineering with advanced float and pipeline solutions, designed to ensure maximum hydraulic resistance and field reliability. Stay tuned.



FLOATS

for dredging & mining sector



ADVANCED THERMOPLASTIC PIPING HDPE 100 & 112

Coextruded Anti-Abrasive & Friction Reducing Technology

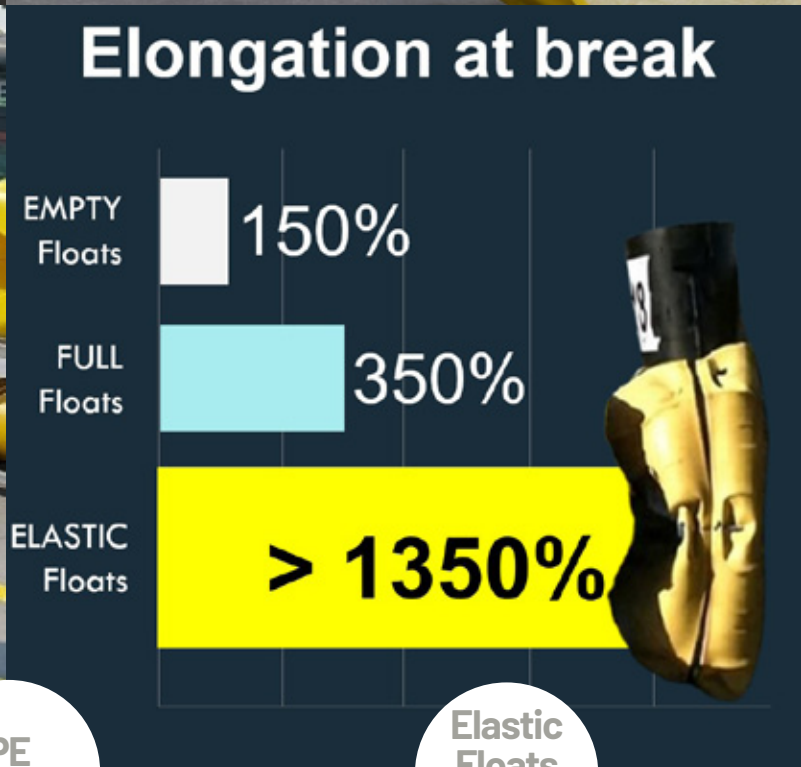


FLOATS

Solution for dredging



PE
Standard
filled PU



PE
Standard

Elastic
Floats
NTEF type

Floats are manufactured from medium density polyethylene PE

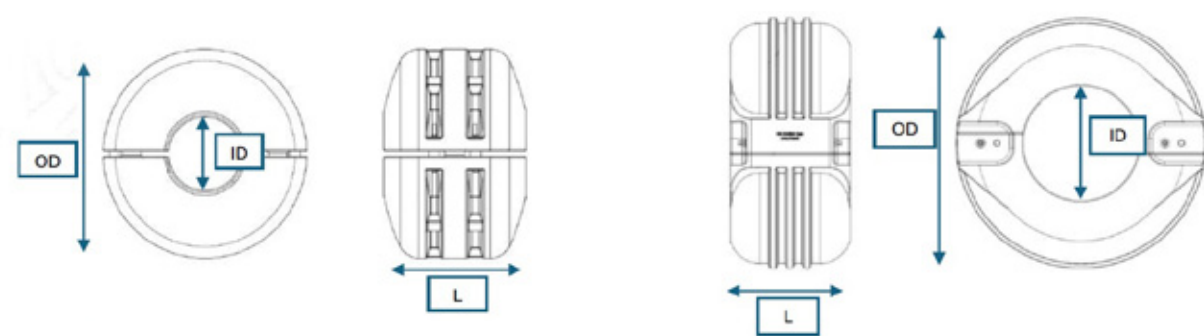
Floats are manufactured from medium density polyethylene

Floats are manufactured from medium density polyethylene (riempiti di poliuretano espanso PU).

NORDTUBI manufactures and supplies floats used in marine and mining dredging.

Pipelines to transport abrasive materials used in marine and mining dredging need to be supported by floats that have considerable durability and can withstand wave impacts or accidental shocks.

FLOAT Dimension



NTDG type _ FOR BIG DIAMETER PIPES

Pipe OD (mm-inch)	Float OD (mm-inch)	Float ID (mm-inch)	L (mm-ft)
110 - 4,3"	450 - 18"	95 - 3,7"	550 - 1,8ft
125 - 5"	450 - 18"	120 - 4,7"	550 - 1,8ft
140 - 5,5"	450 - 18"	135 - 5,3"	550 - 1,8ft
160 - 6,2"	450 - 18"	155 - 6,1"	550 - 1,8ft
180 - 7"	760 - 30"	180 - 7"	670 - 2,2ft
200 - 8"	760 - 30"	200 - 8"	670 - 2,2ft
225 - 8,8"	760 - 30"	225 - 8,8"	670 - 2,2ft
250 - 10"	760 - 30"	250 - 10"	670 - 2,2ft
280 - 11"	960 - 38"	280 - 11"	670 - 2,2ft
315 - 12"	960 - 38"	315 - 12"	670 - 2,2ft
355 - 14"	960 - 38"	355 - 14"	670 - 2,2ft
400 - 16"	1360 - 54"	400 - 16"	730 - 2,4ft
450 - 18"	1360 - 54"	450 - 18"	730 - 2,4ft
500 - 20"	1360 - 54"	500 - 20"	730 - 2,4ft
560 - 22"	1360 - 54"	560 - 22"	730 - 2,4ft
400 - 16"	1250 - 49"	400 - 16"	1200 - 4ft
450 - 18"	1250 - 49"	450 - 18"	1200 - 4ft
500 - 20"	1250 - 49"	500 - 20"	1200 - 4ft
560 - 22"	1250 - 49"	560 - 22"	1200 - 4ft
630 - 24"	1250 - 49"	630 - 24"	1200 - 4ft
710 - 28"	1500 - 60"	710 - 28"	1200 - 4ft
800 - 31,5"	1500 - 60"	800 - 31,5"	1500 - 5ft

Pipe OD (mm-inch)	Float OD (mm-inch)	Float ID (mm-inch)	L (mm-ft)
720 - 28"	1700 - 67"	720 - 28"	1150 - 3,77ft
800/850 - 32"/34"	2000 - 79"	850 - 34"	1150 - 3,77ft
900/950 - 36"/38"	2200 - 87"	950 - 38"	1150 - 3,77ft
1000 - 40"	2100 - 82"	1000 - 39"	1100 - 3,60ft
1000 - 40"	2400 - 95"	1110 - 44"	1150 - 3,77ft
1200 - 48"	2400 - 95"	1200 - 48"	1150 - 3,77ft

Non-standard dimension floats can be available upon request



Outer surface:
smooth or ribbed

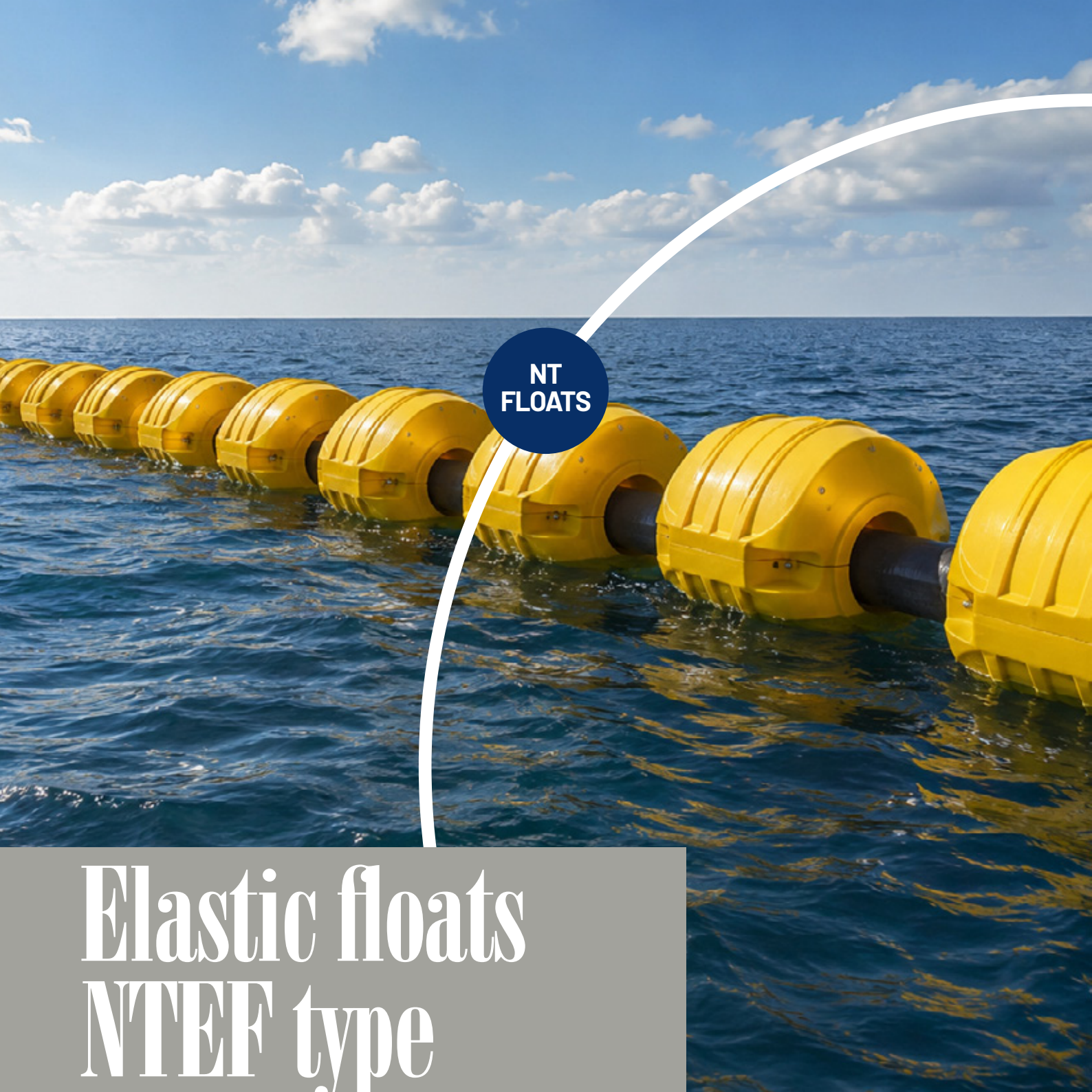


Color :
standard Yellow
(other colour on request)



Accessories:
galvanised steel screws,
washers and nuts/steel bar PE spacers

Non-standard dimension floats can be available upon request



NT
FLOATS

Elastic floats NTEF type

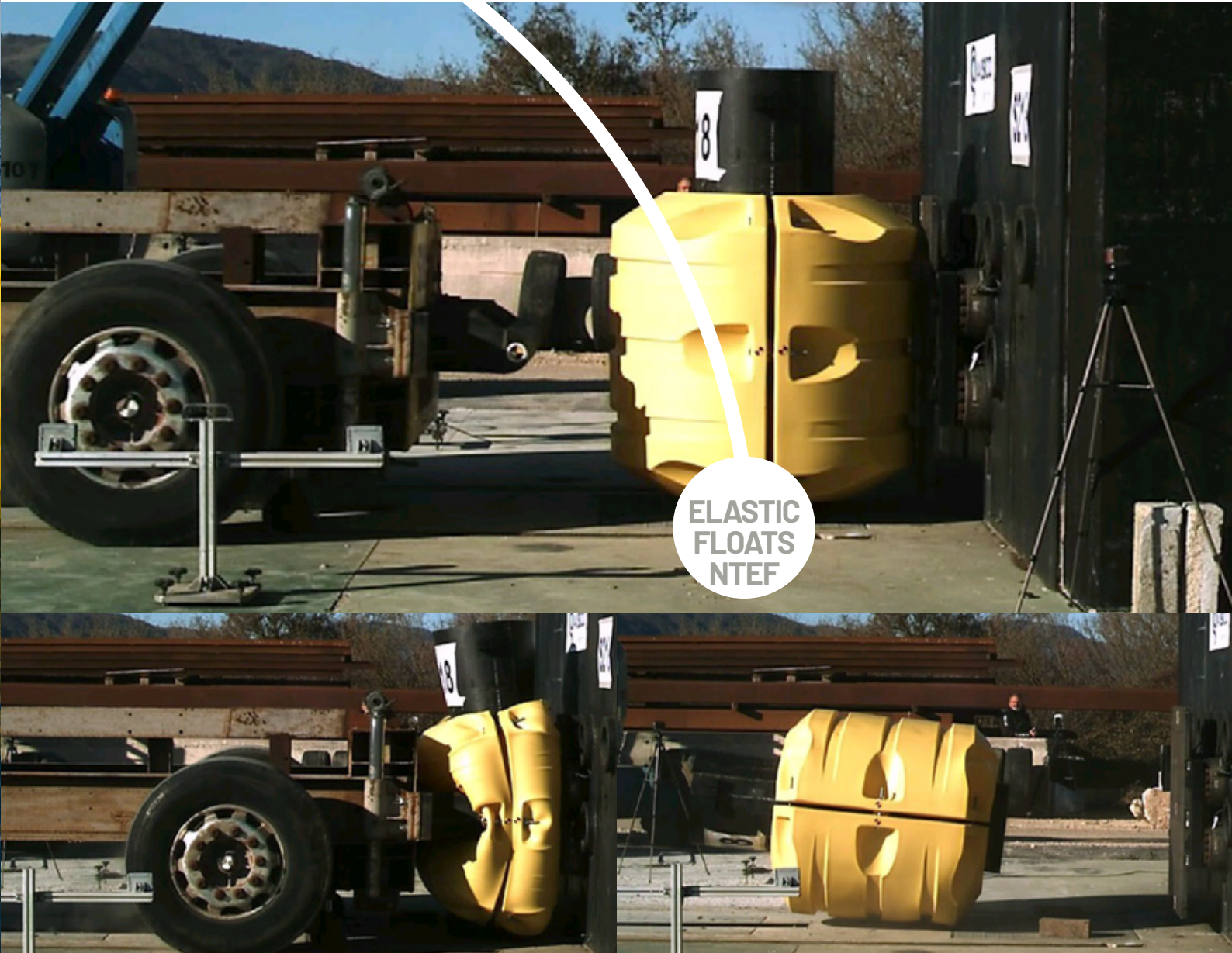
Floats produced with rotational molding have constant wall thickness, excellent durability, exceptional impact resistance. The floats are polyolefin elastomer products and they are empty. Available in two halves with coupling bolts.

TEST CERTIFICATE

Property	Test method	Unit	Nomin. Values
Density (at 23° C)	g / cm ³	D 1505 / ISO 1183	0,91 - 0,93
Flexure Module	Mpa	D 790 / ISO 178	68 - 72
Elongation at break (*)	%	D 638	1350
Hardness		D 2240	37
Vicat	°C	ISO 306	74 - 85
Additive (**)			U.V.10
Oxidative induction time O.I.T. (***)	min	ASTM D 3895	20

(*) rotomolded test pieces - pulling speed 5mm/min
 (**) U.V.12 protection on request
 (***) Same value as required by the international standard for polyethylene pipes
 - Chemical resistance to salt water

ELASTIC FLOATS NTEF TYPE



ELASTIC
FLOATS
NTEF

Type of impact	Rigid Trolley Vs. Float
Angle of impact	90°
Impact mass	6315 Kg
Impact speed	10 knots (18.5 km/h)
Impact force	300 kN (30 Tons)

Impact test performer at an ACCREDIA centre in accordance with standard UNI CEI EN ISO/IEC 17025-2018

The truck with a mass of 6,3 tons impacted against the float at a speed of 10 knots. The float was crushed and returned to its original shape without damage/cracking. They are not filled with polyurethane foam = 100% recyclable.

X-ray
verification
No cracks in
the float



PE FLOATS

Standard Floats



Blocking floats collars

NORDTUBI produces and provides medium density Polyethylene (MDPE) floats for thermoplastics and steel pipes.

Floats are produced with rotational moulding, using high quality PE granules. MDPE cylindrical floats produced with rotational moulding have constant wall thickness, excellent impact resistance and high durability. Available in two halves with coupling bolts.

Floats can be either **EMPTY** or **FILLED** with polyurethane foam.

The floats are produced according to the European Commission Regulation (EC) n.1617/2006

MDPE shell

Floats are made of medium density, yellow-coloured, Polyethylene (MDPE).

Internal PU foam

The use of polyurethane foam ensures greater resistance and improves the durability of the floats. Furthermore, the PU used has a density of 35-50 kg/dm³ and will not absorb water.

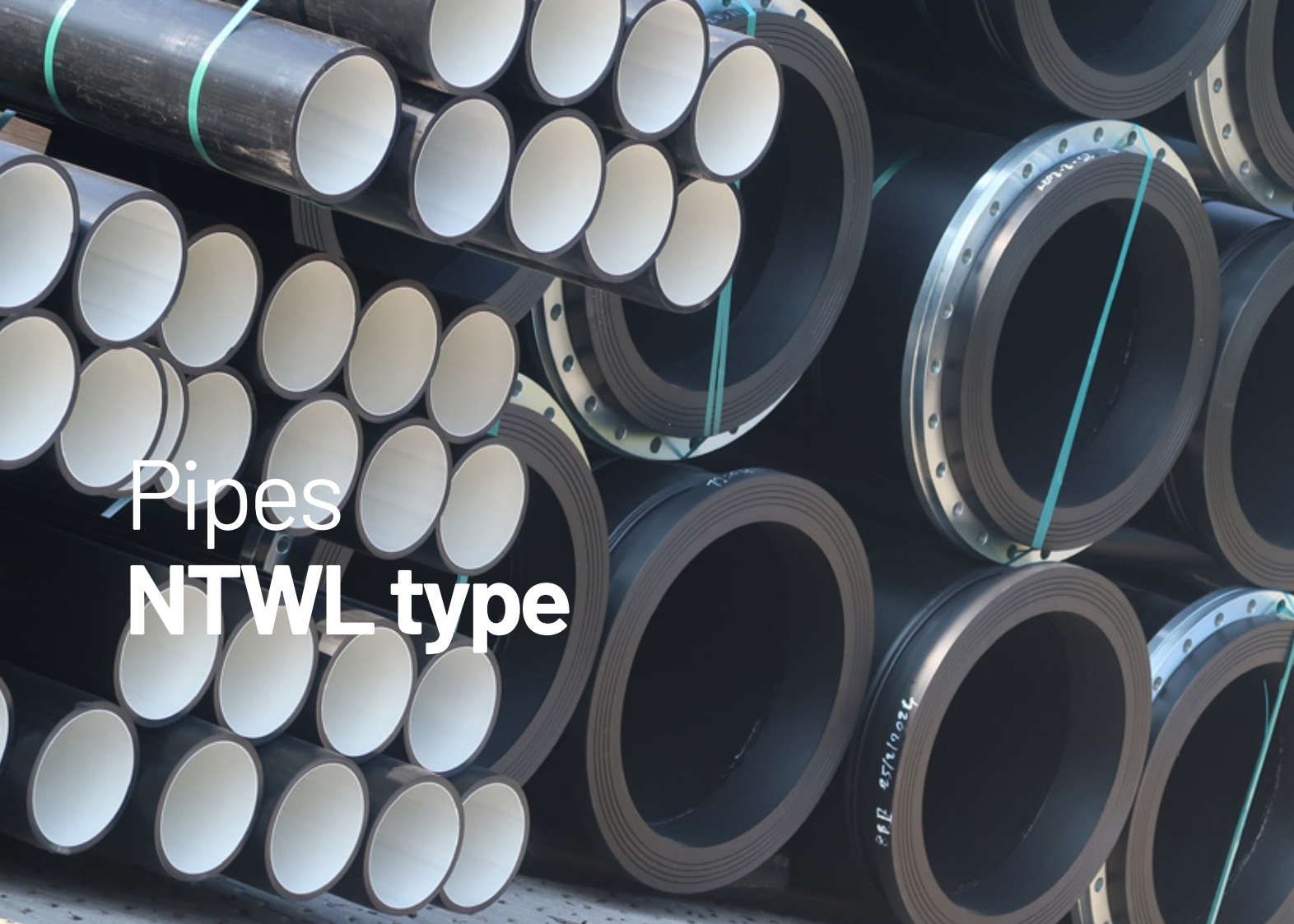
In normal working conditions high forces (In the order of KN) tend to push the floats sideways out of their position, as a consequence the pipeline is no longer straight on the sea level and therefore vulnerable to the effects of abrasion by mixture flow.

These forces are:

- Sea/river water flow rate (m/sec)
- Wind speed (km/h)
- Waves height (m)
- Dredge (CSD-Hopper) speed (kn)
- Debris/wood/solid garbage (Kg)

In order to contrast these forces (KN), the floats are blocked on position by 2 HDPE collars welded directly on the pipe. The collars are produced with Cs = 1.25 (Safety coefficient)





Pipes NTWL type (white layer)
10/15% of total thickness

Total thickness pipe
Thicknesses and tolerances referring
to the standard EN12201/ISO4427

Durable Materials

Less abrasion
- up to 40% less abrasion resistance
than Steel and HDPE pipes*

Reduction in pressure loss
Reduction in pressure drop up to 7-10%

Productivity increase
Cost optimization
Increase cash flow up to 10-12%

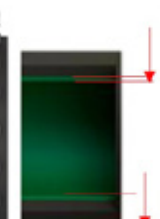
Reduction of CO2 and Fuel
Reduction up to 5-7 %

Reduction of microplastics
Reduction up to 35-40%

Pipes NTWL type (white layer)
suitable for: sand - silt - clay & fine
gravel for inert up to 170 MPa



*Test UNI ISO 469: 2018 met. A



Pipes NTGL type (green layer)
10/15% of total thickness

Total thickness pipe
Thicknesses and tolerances referring
to the standard EN12201/ISO4427

Durable Materials

Less abrasion
- up to 70% less abrasion resistance
than Steel and HDPE pipes*

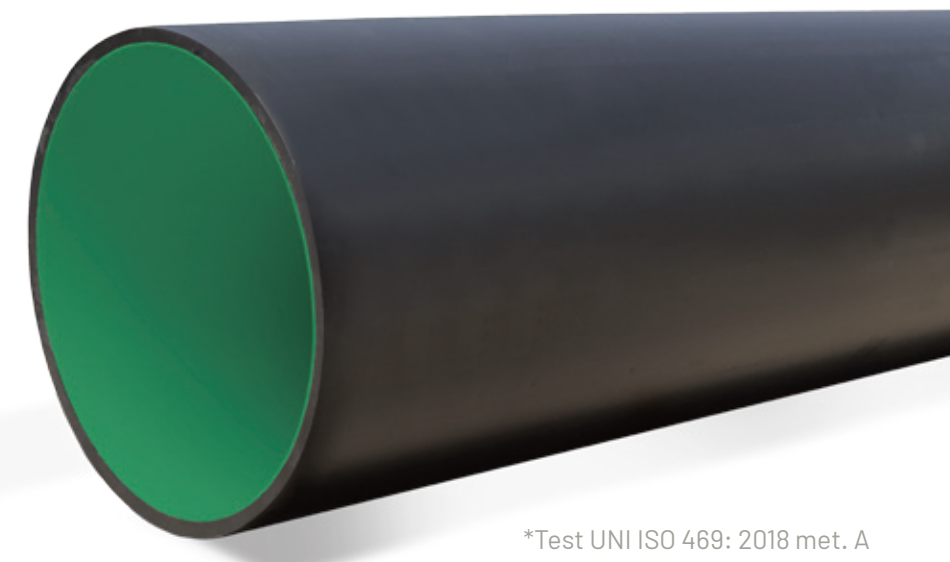
Reduction in pressure loss
Reduction in pressure drop up to 15-18%

Productivity increase
Cost optimization
Increase cash flow up to 15-20%

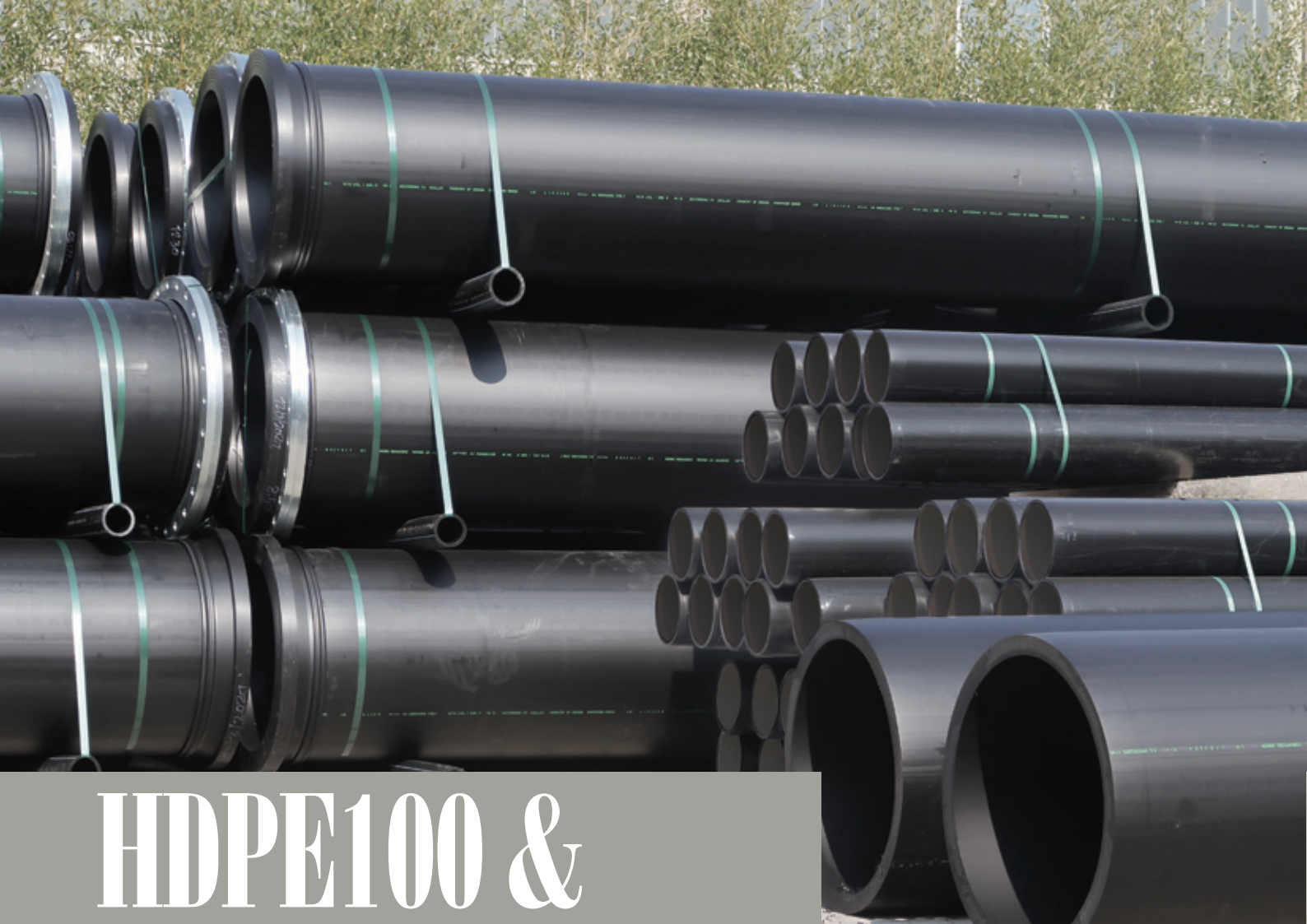
Reduction of CO2 and Fuel
Reduction up to 10-15 %

Reduction of microplastics
Reduction up to 55-65%

Pipes NTGL type (green layer)
gravel - shale gravel - sandstone rock
granite rock - basalt rock - clay ball
for inert up to 270 MPa



*Test UNI ISO 469: 2018 met. A



HDPE100 & HDPE112

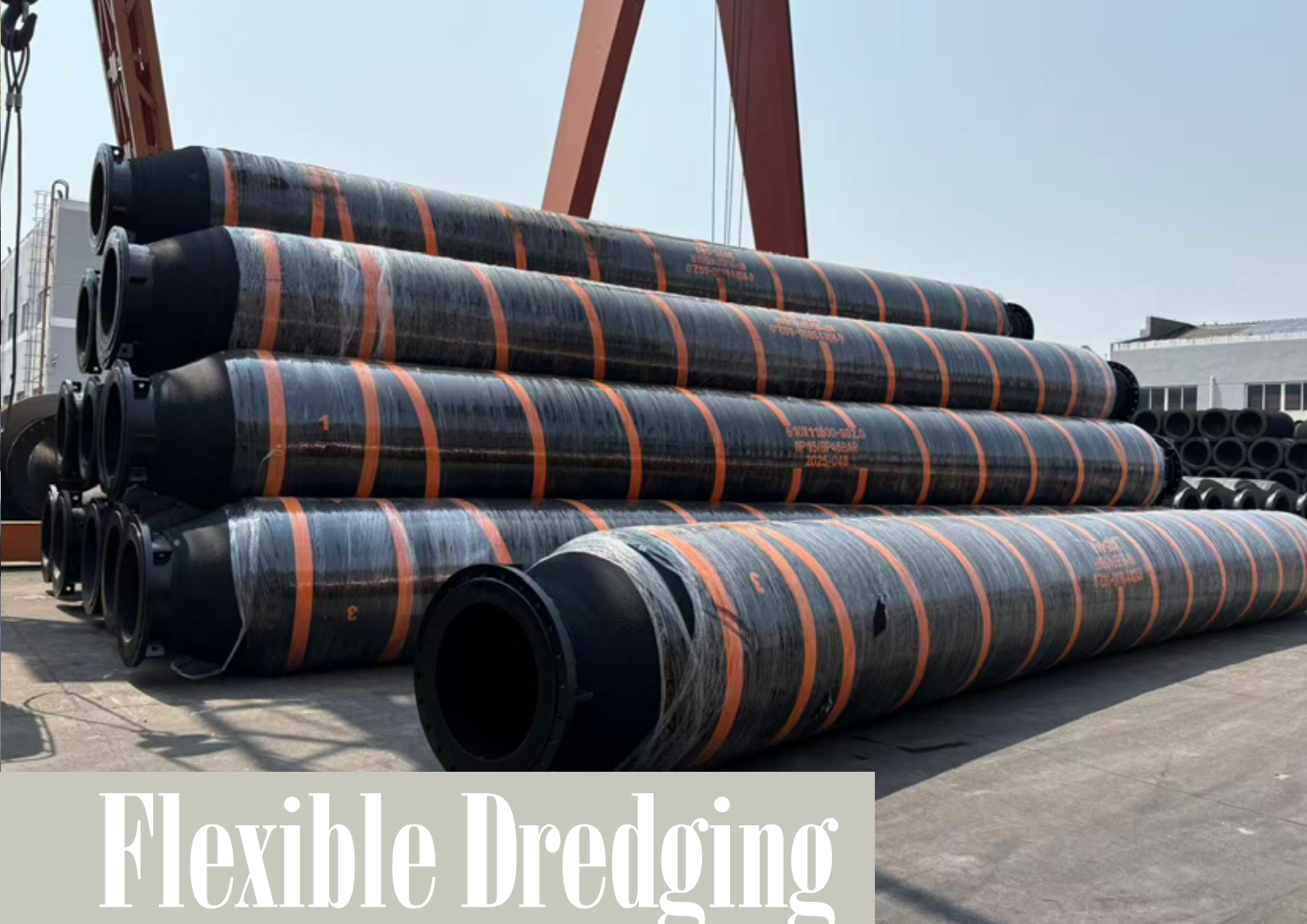
Advanced Technologies for Fluid Conveyance

HDPE100 and HDPE112 are high-performance materials engineered for the manufacture of piping systems designed to meet the demands of the most challenging applications.

HDPE100 is internationally recognized for its outstanding mechanical strength, exceptional durability, complete resistance to corrosion, and excellent performance against abrasion and chemical attack. These characteristics have established it as a benchmark material for pressure piping systems worldwide.

HDPE112 further expands the capabilities of HDPE technology through a new generation of polymers featuring a higher **Minimum Required Strength (MRS)**. This provides greater design flexibility for high-performance piping systems while maintaining the same proven benefits of reliability, weldability, long-term durability, and chemical resistance.

Both materials deliver high standards of safety, operational efficiency, and long-term performance, ensuring reliable operation under the intended service conditions.

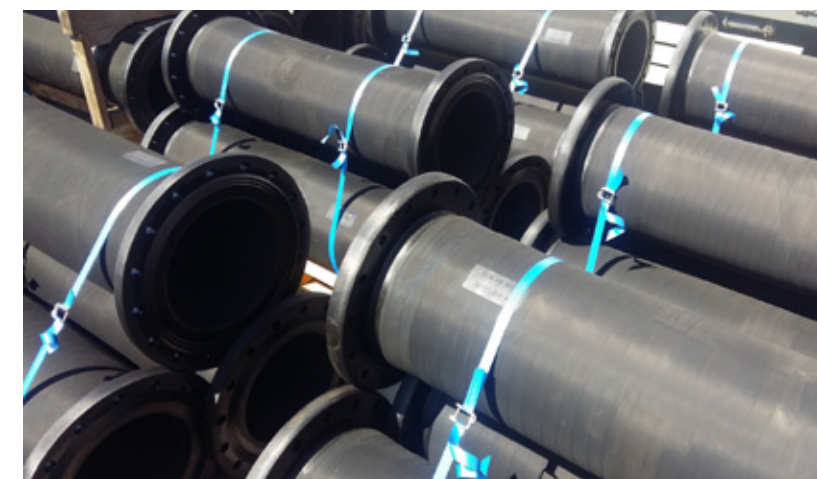


Flexible Dredging Hoses & Sleeves

Reliable connections for complete dredging pipeline systems.

Our flexible dredging hoses and rubber sleeves are designed to complement HDPE pipeline solutions, providing flexibility and adaptability where movement, vibration and operational changes require dynamic connections.

Engineered for integration into demanding dredging environments, they ensure reliable performance, simplified installation and effective connection between different sections of the discharge line.





WELDING

SERVICE
on
SITE

ASSEMBLY
and
TEST

TRAINING
and
SAFETY

Qualified technicians, with international welding license and certified equipment, can perform welded junctions and connections directly on site.

Qualified technical staff can perform the assembly of the pipeline and all its component, ensuring high quality standards.

Theoretical and applied trainings are held by NORDTUBI engineers, providing all the necessary information for the correct use, handling and storing of thermoplastic products, as wells their repairment procedures.

Certifications & Quality Assurance

Certified processes, qualified expertise, and controlled production standards.

Quality and reliability are integral parts of our engineering approach.

Our certifications and technical qualifications confirm our commitment to delivering safe, compliant and high-performance pipeline solutions.

Key certifications and qualifications:

- **ISO 9001 Quality Management System** – ensuring structured processes, continuous improvement and consistent quality standards.
- **SOA Certification No. 82450** – qualification for participation in public works and specialized industrial projects.
- **Certified Welding Expertise** – qualified personnel and controlled welding procedures for thermoplastic pipeline manufacturing.

Through certified processes and specialized know-how, we support our customers with reliable solutions for demanding dredging and industrial applications.

