



**OASIS WEAR TECH
INDUSTRIES LLC**



Casto Tubes

Active protection against abrasion and erosion

Small diameter, seamless CastoTubes for superior industrial performance :

- Extremely wear resistant, lightweight and easy-to-join
- Highly cost effective for rapid replacement of worn tubes
- Increased service life, plant availability and process productivity

Casto Tubes



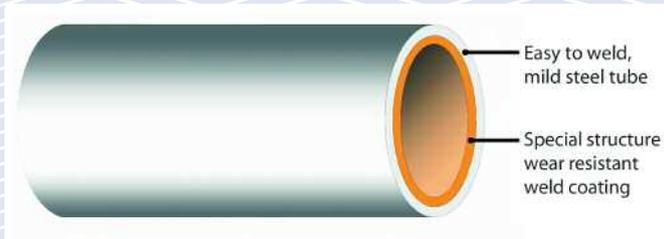
CastoTubes is the latest addition to our expanding range of anti-wear solutions for industry.

Basically it consists of easy-to-weld mild steel tubes which have been internally welded with TeroMaTec 4666 alloy which maintains the exceptional wear resistance of our well known 4666 CastoDur Diamond Plates. Furthermore, Castotube avoids expensive forming operations of flat plates into tubes.

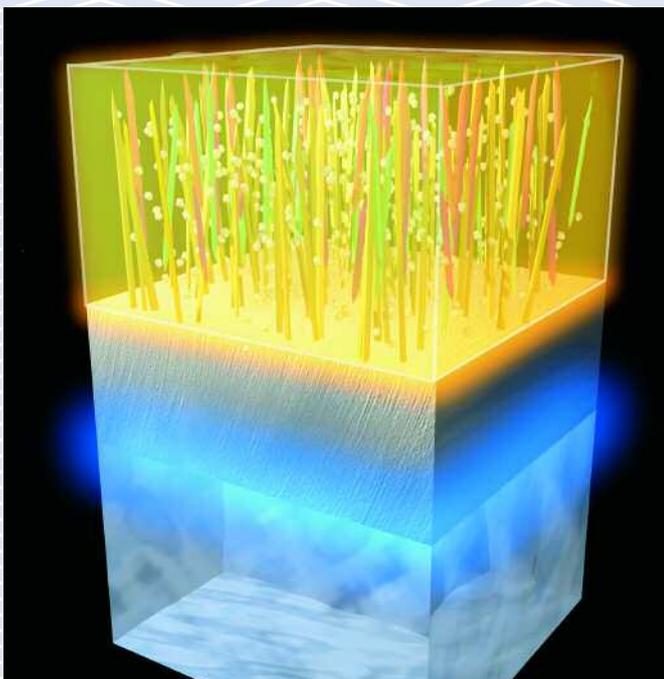
CastoTubes offer many advantages:

- Highly cost effective
- Absence of harmful linear weld joints
- Exceptional wear resistance
- Perfect round cross section
- Spiral welding minimises distortion
- Lightweight for handling
- Easy-to-join by welding or mechanical means

CastoTubes coating

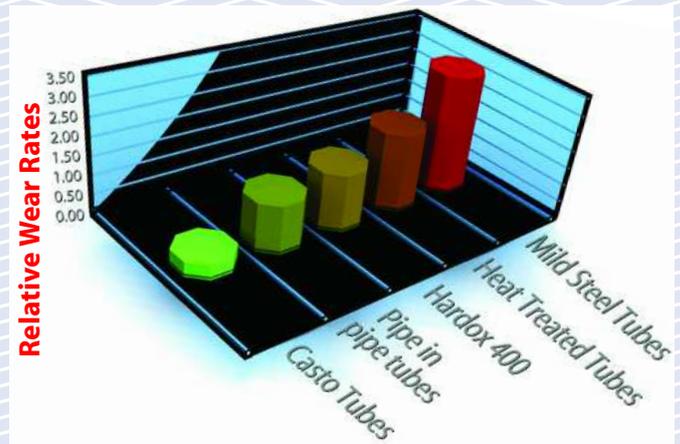


Applied internal coating thicknesses are typically 3 - 5 mm. The TeroMaTec 4666 wearfacing alloy contains multiple hard phases with hardnesses reaching 1500 - 2700 HV which resist abrasion and erosion up to 500°C. Alternative alloys and different base tube compositions for extreme service conditions (eg high temperature erosion) are available on request.



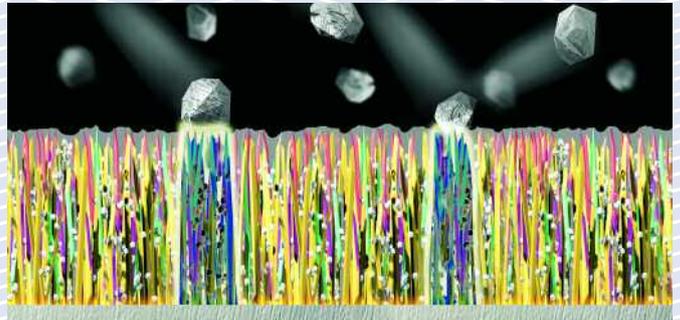
Controlled cooling during the manufacturing process produces densely dispersed hard phases. These are vertically oriented to provide superior wear resistance as compared to conventional weld coatings.

CastoTubes wear resistance



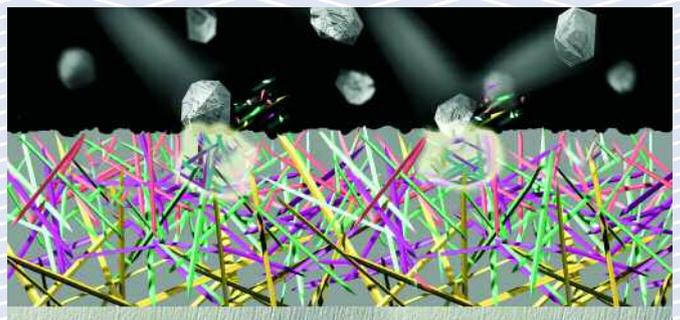
CastoTubes are engineered for exceptional wear resistance as illustrated by the laboratory abrasion wear test data above. This performance results from:

1. Ultra-hard phases anchored in a tough matrix. Their hardness is typically 2-3 times higher than the most abrasive media used in industrial processes.
2. Unique geometry of hard phases achieved by controlled cooling of weld solidification kinetics. These tend to nucleate as a dispersion between other needle shaped phases which are vertically oriented and firmly anchored within the matrix. This prevents premature "washing out" of the hard phases from the "softer" matrix by wear.



Dense dispersion of vertically oriented hard phases maximise wear resistance

Conventional, randomly solidified alloys tend to wear out much faster due to the early loss of hard particles from the matrix before contributing their useful wear resistance.



Conventional weld structure with random oriented hard phases which wear out faster

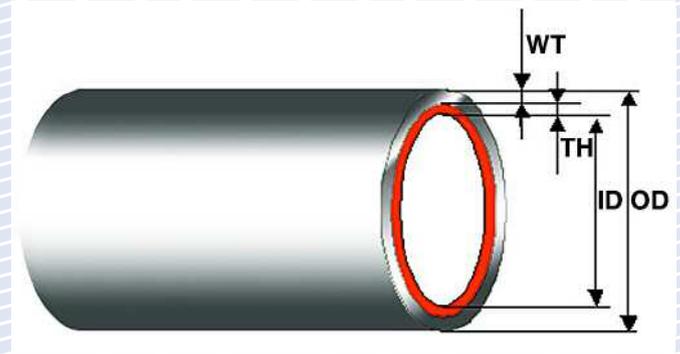
Casto Tubes



Standard CastoTubes Range

Tubes with a minimum inner diameter of 100 mm are available, with a maximum length of 3.0 m. CastoTubes can be fitted with standard flanges so that the replacement of worn out tubes can be done quickly and easily.

Virtually any inner diameter ranging from 100 - 300mm can be produced by applying a different wearfacing thickness inside the standard base tube. This allows a close mating joint to the existing installation, thus avoiding turbulent media flow.



Maximum length 3.0 meters

Item no.	Inner dia ID (mm)	Base tube		Wear facing TH (mm)
		Outer dia OD (mm)	Wall WT (mm)	
0100 CT 3635	100	114.3	3.6	3.5
0125 CT 4035	125	139.7	4.0	3.5
0150 CT 4545	150	168.3	4.5	4.5
0200 CT 5050	200	220.0	5.0	5.0
0250 CT 6350	250	273.0	6.3	5.0

Additional dimensions are also available on request.

Flange joints

CastoTubes are available with slip-on or integral flanges in accordance with DIN/EN standards. Other types of flange joints are also available on request.



Elbows

Elbows are fabricated by cutting CastoTubes into wedges and re-assembling them according to customer specifications for the pipe bend geometry.

100mm internal diameter elbow with flange (bottom) and detail (right above)



Casto Tubes



Applications

Casto Tubes offer a comprehensive range of solutions for virtually all wear-intensive tube systems in industries like :-

- Cement
- Ready Mix Concrete Plants
- Iron & Steel Mills
- Glass Industry
- Brickworks
- Foundries & Coking Plants
- Waste Recycling Plants & Thermal Power Plants



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