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Based on an idea by Raffaele Santi - Sales & Marketing Manager Graphic Design and 3D Modeling by DVDesign.it

APPLICATION OVERVIEW

COMPANY PROFILE PRODUCTION PROCESS

STEEL WORKS AND ALUMINUM MILLS HOT PLATE LEVELLER

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COMPANY PROFILE

COMESA S.R.L., founded in 1966, is a renowned name in the metal industry worldwide.

The company specializes in manufacturing a wide range of high precision custom-built steel rolls and related products used in the metal industry.

Having a rich experience of 6 decades and expert knowledge of application, heat-treatment, grinding and chrome plating processes, COMESA has evolved to the leadership position in the industry. Situated in the city of Bologna in Italy, COMESA is catering to a wide number of customers spread across 6 continents. It has been a reliable and preferred partner for many renowned OEMs, Steel plants, and big and small metal processing companies for many years.

Comesa caters to following types of industries:

- STEEL WORKS AND ALUMINUM MILLS;
- METAL WORKING SERVICE CENTRES;
- BAR MILLS.

Company with Quality Management System Certified ISO 9001. Cert. N. 50 100 3292

Made in Italy

PRODUCTION PROCESS



CUTTING
WITH SEMI-AUTOMATIC,
HIGH-SPEED BAND-SAWS



DONE ON BOTH CONVENTIONAL AND N.C. LATHES

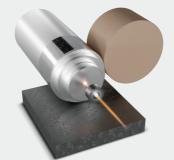
TURNING



INDUCTION HARDENING, THROUGH HARDENING OR CASE-HARDENING,

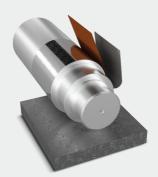
DEPENDING ON THE FINAL APPLICATION

HEAT TREATMENT



GRINDING ON CENTRES

WITH THE ABILITY TO REACH
GEOMETRICAL AND DIMENSIONAL
TOLERANCES LESS THAN 0.01 MM



CHROMIUM PLATING / POLISHING

CHROMIUM PLATING ON ROLLS WORKING ON POLISHED MATERIALS, SUCH AS ALUMINUM, STAINLESS STEEL, ETC.

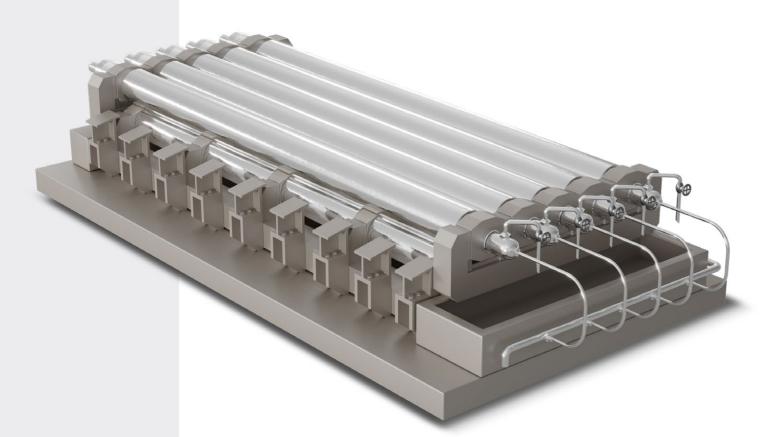
POLISHING WITH THE POSSIBILITY TO REACH A FINAL SURFACE FINISH OF RA \leq 0,1 μ M



MARKING

TO GUARANTEE THE COMPLETE TRACKING OF OUR PRODUCTS







Work and back-up rolls manufactured from forged, hot-working steel grades to withstand high thermal shocks.



HOT PLATE LEVELLERS

WORK ROLLS, BACK-UPS



Standard diameters

from 220 mm. to 500 mm.

Standard lengths

from 4000 mm. to 6000 mm.

Mainly used steel grades

X63CrMoV5.1 (W 1.2362)

X40CrMoV5.1 (W 1.2344)

X38CrMoV5.1 (W 1.2343) 56NiCrMoV7 (W 1.2714)



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COLD PLATE LEVELLERS

WORK ROLLS, BACK-UPS



Standard diameters

from 180 mm. to 400 mm.

Standard lengths

from 3500 mm. to 6000 mm.

Mainly used steel grades

X63CrMoV5.1 (W 1.2362) 86CrMoV7 (W 1.2327) 50CrMo4 (W 1.7228)









Used in all the Aluminum mills, those biconical table rolls are manufactured in forged steel grades to avoid deformation and withstand high stresses applied.

Standard diameters

from 180 mm. to 400 mm.

Standard lengths

from 2500 mm. to 4000 mm.

Mainly used steel grades

56NiCrMoV7 (W 1.2714) 42CrMo4 (W 1.7225)







WORK ROLLS, INTERMEDIATE ROLLS, BACK-UP ROLLS, COMPLETE CASSETTES







Consisting of levelling and bending rolls groups, it is used to level several kinds of metal strips (such as carbon steel, stainless steel, aluminum and non-ferrous materials) kept under tension.

Standard diameters

from 16 mm. to 100 mm.

Standard lengths

from 1000 mm. to 2500 mm.

Mainly used steel grades

100Cr6 (W 1.3505) 58CrMoV4 (W 1.7792) 51CrMoV4 (W 1.7701) 50CrMo4 (W 1.7228) 50CrV4 (W 1.8159)













from 40 mm. to 80 mm.

Standard lengths

from 1000 mm. to 2500 mm.

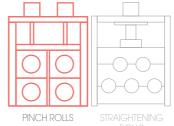
Mainly used steel grades

X155CrVMo12.1 (W 1.2379) 100Cr6 (W 1.3505) 58CrMoV4 (W 1.7792) 51CrMoV4 (W 1.7701) 50CrMo4 (W 1.7228) 50CrV4 (W 1.8159)





Usually on the entry part of pickling lines, composed of 4 pinch rolls and 5 straightening rolls.



PROCESSOR- PINCH PINCH ROLLS



Standard diameters

from 300 mm. to 320 mm.

Standard lengths

from 1500 mm. to 3500 mm.

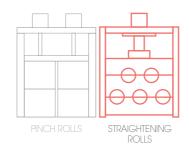
Mainly used steel grades

X155CrVMo12.1 (W 1.2379) 86CrMoV7 (W 1.2327) 100Cr6 (W 1.3505) 50CrMo4 (W 1.7228) 50CrV4 (W 1.8159) 





Usually on the entry part of pickling lines, composed of 4 pinch rolls and 5 straightening rolls.





STRAIGHTENING ROLLS



Standard diameters

from 200 mm. to 220 mm.

Standard lengths

from 1500 mm. to 3500 mm.

Mainly used steel grades

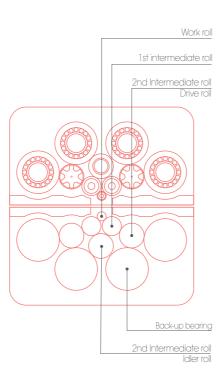
X155CrVMo12.1 (W 1.2379) 86CrMoV7 (W 1.2327) 100Cr6 (W 1.3505) 50CrMo4 (W 1.7228) 50CrV4 (W 1.8159)





COLD ROLLING MILLS





Cluster mill used for rolling hard and elastic materials such as stainless steel and non-ferrous alloys.



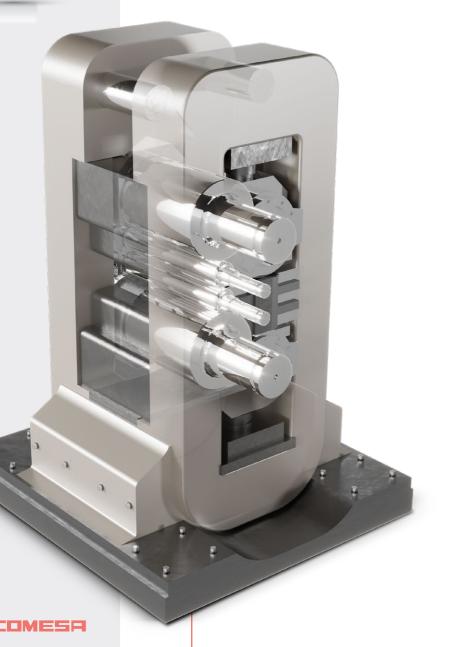
20-HI SENDZIMIR MILLS WORK ROLLS, INTERMEDIATE ROLLS, BACK-UP BEARINGS

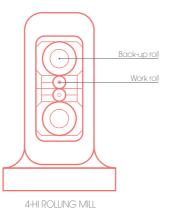


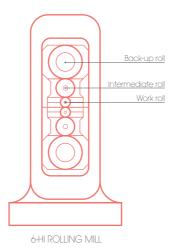
	Standards Diameters	Standards Lengths	Mainly used steel grades
Work roll	from 20 mm. to 130 mm.	from 400 mm. to 2200 mm.	X155CrVMo12.1 (1.2379) X82WMoV6.5 (M2) X82WMoV2.9 (M1) ASP2023 (M3:2) X63CrMoV5.1 (1.2362) X37CrMoW5.1 (1.2606) Special 8%Cr tool steels
1st Interm. roll	from 40 mm. to 150 mm.	from 400 mm. to 2200 mm.	
2nd Interm. roll	from 65 mm. to 250 mm.	from 400 mm. to 2500 mm.	

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COLD ROLLING MILLS

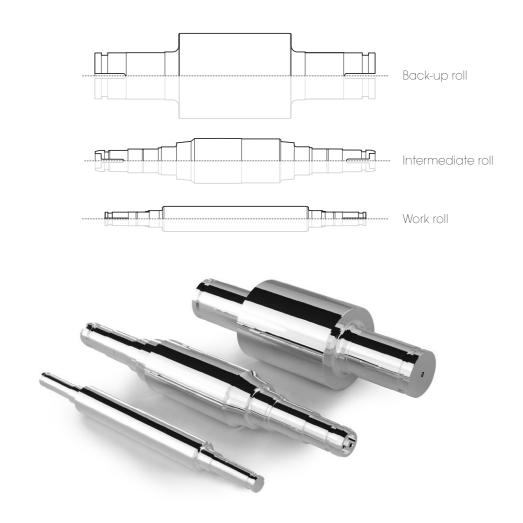






Used in Steel and Aluminum mills to produce high-quality and uniform surfaces.

4-HI / 6-HI ROLLING MILLS WORK ROLLS, INTERMEDIATE ROLLS, BACK-UP ROLLS



	Standards Diameters	Standards Lengths	Mainly used steel grades
Work roll	from 80 mm. to 280 mm.	from 800 mm. to 2500 mm.	
Intermediate roll	from 130 mm. to 280 mm.	from 800 mm. to 2500 mm.	9Cr3Mo X155CrVMo12.1 (W 1.2379) X63CrMoV5.1 (W 1.2362)
Back-up roll	from 350 mm. to 500 mm.	from 800 mm. to 2500 mm.	



METAL WORKING SERVICE CENTRES



levelled surfaces.



Used on all cut-to-length lines, they work on the strip to obtain perfectly

LEVELLERS AND STRAIGHTENERS

WORK ROLLS, INTERMEDIATE ROLLS, BACK-UP ROLLS, COMPLETE CASSETTES



Standard diameters

from 20 mm. to 300 mm.

Standard lengths

from 1000 mm. to 4000 mm.

Mainly used steel grades

86CrMoV7 (W 1.2327) 100Cr6 (W 1.3505) 58CrMoV4 (W 1.7792) 51CrMoV4 (W 1.7701) 50CrMo4 (W 1.7228) 50CrV4 (W 1.8159)



METAL WORKING SERVICE CENTRES



Refurbishing of single components or complete cassettes, we also have a maintenance team that can take care of the disassembly and re-assembly of the levelling cassette on the machine, and the setup and starting up of the lines.

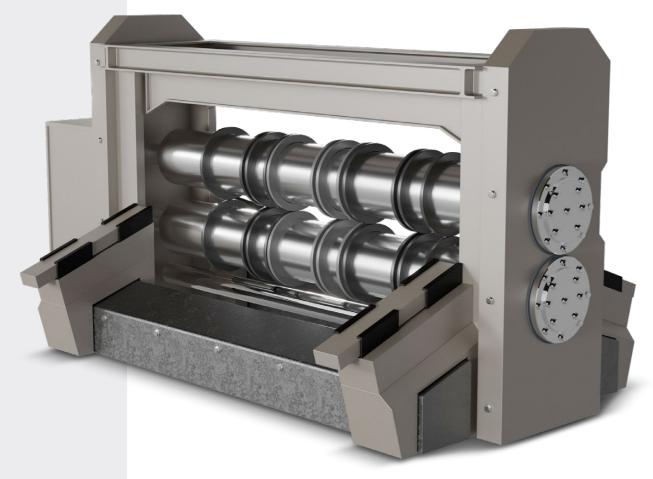


MAINTENANCE

WORK ROLLS, INTERMEDIATE ROLLS, BACK-UP ROLLS, COMPLETE CASSETTES



METAL WORKING



Manufactured in quenched and tempered steel grades, induction hardened, finished to tight geometrical tolerances to ensure high cutting performances.







Standard diameters

from 180 mm. to 320 mm.

Standard lengths

from 1000 mm. to 3500 mm.

Mainly used steel grades

100Cr6 (W 1.3505) 50CrMo4 (W 1.7228) 42CrMo4 (W 1.7225)





METAL WORKING SERVICE CENTRES



Usually placed after the slitter, to eliminate burrs and sharp edges coming from the cutting process.



SLITTING LINES DE-BURRING ROLLS





Standard diameters

from 180 mm. to 300 mm.

Standard lengths

from 1000 mm. to 2500 mm.

Mainly used steel grades

100Cr6 (W 1.3505) 50CrMo4 (W 1.7228)



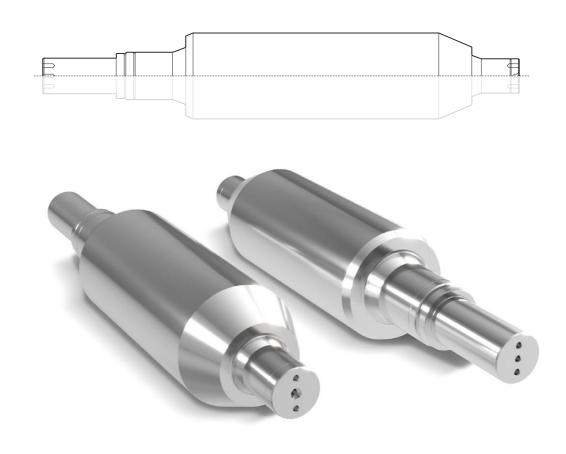
METAL WORKING SERVICE CENTRES



Manufactured in quenched and tempered steel grades, usually also induction hardened, finished dependent upon the final application.



CALENDERS CALENDER ROLLS, DRIVE ROLLS



Standard diameters

from 150 mm. to 500 mm.

Standard lengths

from 1000 mm. to 5000 mm.

Mainly used steel grades

42CrMo4 (W 1.7225) 40CrMnMo7 (W 1.2311)









CONCAVE AND CONVEX ROLLS





Manufactured from tool steel grades, induction or through hardened, used to straighten round bars and profiles.

Standard diameters

from 150 mm. to 400 mm.

Standard lengths

from 500 mm. to 1500 mm.

Mainly used steel grades

X155CrVMo12.1 (W 1.2379) 86CrMoV7 (W 1.2327)





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