

BRIGHT FORMING WIRE

Thanks to a company history starting already in 1873, Fagersta Stainless is one of the world leading producers of stainless steel wire rod and wire. With customized chemistries, the products fulfill everything from simple to high demanding applications.

WHAT CAN WE OFFER?

Services:

- Material directly from stock
- Optimal packaging solutions to secure the wire quality and safe handling

Product properties:

- Tight chemistry to ensure product consistency
- Bright surfaces with high end surface smoothness
- High performance corrosion resistance
- Consistent and narrow mechanical properties and deformation hardening
- Optimal straightening and bending properties

Grade	Fagersta article	Dimension	Tolerance	Tensile Strength range	Packing Methods
304	DF100178	2.50	+0/-0.03	800-1000	Coil 250 kg
304	DF100174	3.00	+0/-0.03	750-950	Coil 500 kg
304	DF100184	3.50	+0/-0.03	750-950	Bobbin 500 kg
304	DF100175	4.00	+0/-0.03	800-1000	Bobbin 500 kg
304	DF013319	4.00	+0/-0.03	800-1000	Compact Coil 1000 kg
304	DF100197	5.00	+0/-0.03	750-950	Compact Coil 1000 kg
304	DF011876	6.00	+0/-0.03	850-1100	Compact Coil 1000 kg
304	DF100189	7.00	+0/-0.03	850-1100	Compact Coil 1000 kg
304	DF100185	8.00	+0/-0.03	700-900	Compact Coil 500 kg
304	DF013046	10.00	+0/-0.03	750-900	Coil 1000 kg
304	DF014118	12.00	+0/-0.04	700-900	Coil 1000 kg
316L	DF100168	2.00	+0/-0.03	800-1000	Coil 250 kg
316L	DF100186	2.50	+0/-0.03	800-1000	Coil 250 kg
316L	DF100147	3.00	+0/-0.03	800-1000	Coil 250 kg
316L	DF100195	3.50	+0/-0.03	800-1000	Coil 1000 kg
316L	DF014531	4.00	+0/-0.03	750-950	Bobbin 500 kg
316L	DF013363	4.00	+0/-0.03	750-950	Compact Coil 1000 kg
316L	DF011602	5.00	+0/-0.03	750-950	Compact Coil 1000 kg
316L	DF100151	6.00	+0/-0.03	750-950	Compact Coil 1000 kg
316L	DF100193	7.00	+0/-0.03	750-950	Compact Coil 500 kg

STOCK

Due to a close cooperation with our meltshop, we have the possibility to offer customized chemistries on top of the grades we have in our standard range.

Fagersta Stainless produces bright forming wire in a large number of austenitic, ferritic and Duplex stainless steel grades, which makes it possible for us to supply material for applications in various environments.

We stock bright forming wire with dimensions of 1.50-12.00 mm.



MECHANICAL PROPERTIES

Our standard is to supply bright forming wire with a tensile strength of 750-1,100 N/mm². By choosing a specific grade and how we process it in production, we can adjust the mechanical properties according to the customers wishes and therefore offer other intervals of tensile strength.

Tensile strength:

Customized levels

Max 40 N/mm² variation within a coil

Max 100 N/mm² variation from delivery to delivery

Yield strength: With customized chemistries we can control yield strength in relation to tensile strength.

CORROSION

PRE (Pitting Resistance Equivalent = Cr + 3.1 x Mo + 25 x N) is a factor comparing properties of different chemistries with regards to pitting and crevice corrosion in corrosive environments. A higher value means better resistance. In the table above, PRE is shown for the grades we recommend for bright forming wire. Surface smoothness is also an important factor to prevent corrosion.

BRIGHT SURFACES

Products made from bright forming wire are often used in environments where there are high demands with regards to hygiene and aesthetical properties. It is therefore important that the surfaces are bright and free from defects, which also gives an optimum result at the electro-polishing process. We have developed our own various bright drawing methods which makes it possible for us to offer everything from standard to high demanding surfaces:

- FAGERSTA Bright forming wire from stock
- FAGERSTA Royal, at request with higher tensile properties

DIMENSIONS

Standard: 1.50-12.00 mm (.059" - .472")

Tolerance: h9 according to EN 10278

1.50 - 3.00	+ 0 / - 0.025
3.01 - 6.00	+ 0 / - 0.030
6.01 - 12.00	+ 0 / - 0.036

Ovality: max 50% of the total tolerance span

MAIN BRIGHT FORMING WIRE GRADES

Grade family	Marcegaglia name	Fagersta	EN	ASTM TYPE	PRE	CWH	Typical chemical composition, % by mass					
							C	Cr	Ni	Mo	N	Others
Austenitic	304/4301	R350.19	1.4301	304	18	108	0.04	18.1	8.1	-	-	-
Austenitic	316L/4404	R425.10	1.4404	316L	24	92	0.02	17	10.1	2.1	-	-

Other grades available on request, read more from leaflet on Fagersta standard steel grades.

BRIGHT FORMING APPLICATIONS

Products made from stainless steel bright forming wire are often used in environments where there are high demands with regards to hygiene and aesthetical properties. It is therefore important that the surfaces are bright and free from defects.

Industries with bright forming applications include automotive, aerospace, medical devices, electronics and electrical components, construction, jewelry, marine, food and beverage.

Fagersta Stainless has developed its own bright drawing methods which makes it possible to offer customers everything from standard to high demanding surfaces.

