



# CEWELD 320 LR

|                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |                         |                      |        |          |     |
|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------------|----------------------|--------|----------|-----|
| TYPE                                              | Solid stainless steel wire for high corrosive environments. (Type 320, Alloy20,Valbruna AV20)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                |                         |                      |        |          |     |
| APPLICATIONS                                      | CEWELD® 320 LR (equivalent to Alloy 20 or Valbruna AV20) is used in many industries, including chemical processing, petrochemicals and refineries, shipbuilding, pharmaceuticals, and food processing. End uses include equipment for industries that produce or use sulfuric acid, storage tanks, mixing tanks, agitators, pump and valve parts, food processing equipment (resistance to fruit acids and fatty acids), fasteners and fittings, and the production of synthetic plastics.                                                                                         |                |                         |                      |        |          |     |
| PROPERTIES                                        | CEWELD® 320 LR has been specially developed for high resistance to sulfuric acid. The high nickel, chromium, molybdenum, and copper content ensures excellent general corrosion resistance. Due to the limited carbon content and niobium stabilization, welded structures can generally be used in corrosive environments without heat treatment after welding. With a nickel content of 33 percent, CEWELD® 320 LR is virtually immune to chloride-induced stress corrosion cracking. This alloy is often chosen to solve SCC problems that can occur with 316L stainless steel. |                |                         |                      |        |          |     |
| CLASSIFICATION                                    | AWS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | A 5.9: ER320   |                         |                      |        |          |     |
|                                                   | EN ISO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 14343-B: G 320 |                         |                      |        |          |     |
|                                                   | W.Nr.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2.4660         |                         |                      |        |          |     |
|                                                   | F-nr                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 6              |                         |                      |        |          |     |
|                                                   | FM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 5              |                         |                      |        |          |     |
| SUITABLE FOR                                      | 2.4660,<br>AISI 320, A351, A744 Gr. CN-7M<br>UNS N08020<br>Alloy 20, Carpenter 20, 320, Nicrofer 3620 nb, Carpenter 20, Incoloy 20, NiCr20CuMo                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |                         |                      |        |          |     |
| APPROVALS                                         | CE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |                         |                      |        |          |     |
| WELDING POSITIONS                                 | <div>     </div>                                                 |                |                         |                      |        |          |     |
| TYPICAL CHEMICAL ANALYSIS OF THE FILLER METAL (%) | C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Si             | Mn                      | Cr                   | Ni     | Mo       | Cu  |
|                                                   | 0.06                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 0.5            | 1.6                     | 20                   | 34     | 2.5      | 3.5 |
| MECHANICAL PROPERTIES                             | Heat Treatment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                | R <sub>P0,2</sub> (MPa) | R <sub>m</sub> (MPa) | A5 (%) | Hardness |     |
|                                                   | As Welded                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                | 400                     | 590                  | 35     | HRc      |     |
| REDRYING                                          | Not required                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                         |                      |        |          |     |
| GAS ACC. EN ISO 14175                             | M13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                         |                      |        |          |     |



# CEWELD 320 LR

320 LR 1.2MM

| Packaging | KG/unit | EanCode       |
|-----------|---------|---------------|
| BS-300    | 15      | 8720663415455 |

320 LR 1.6MM

| Packaging | KG/unit | EanCode       |
|-----------|---------|---------------|
| BS-300    | 15      | 8720663415462 |