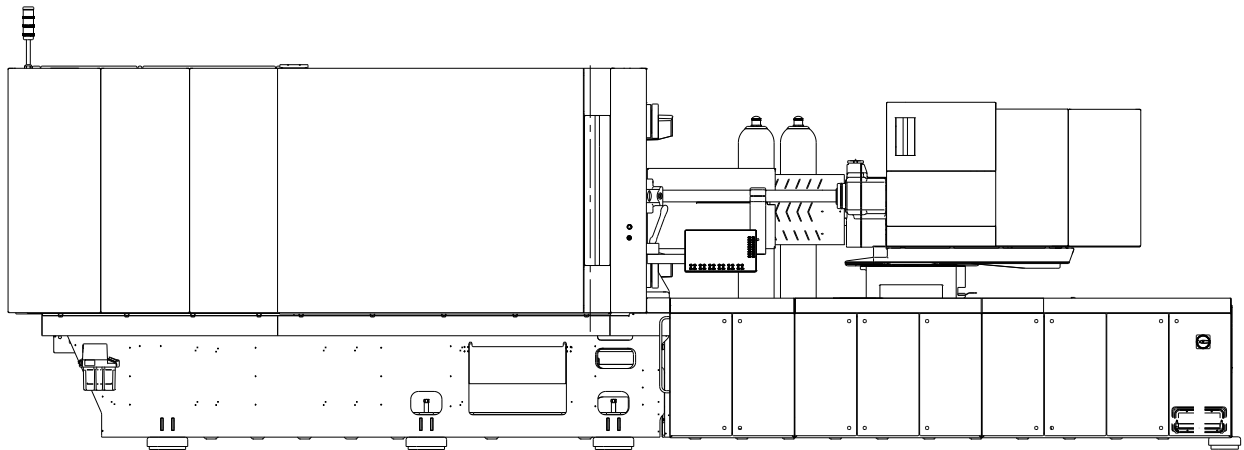




## ALLROUNDER 820 H

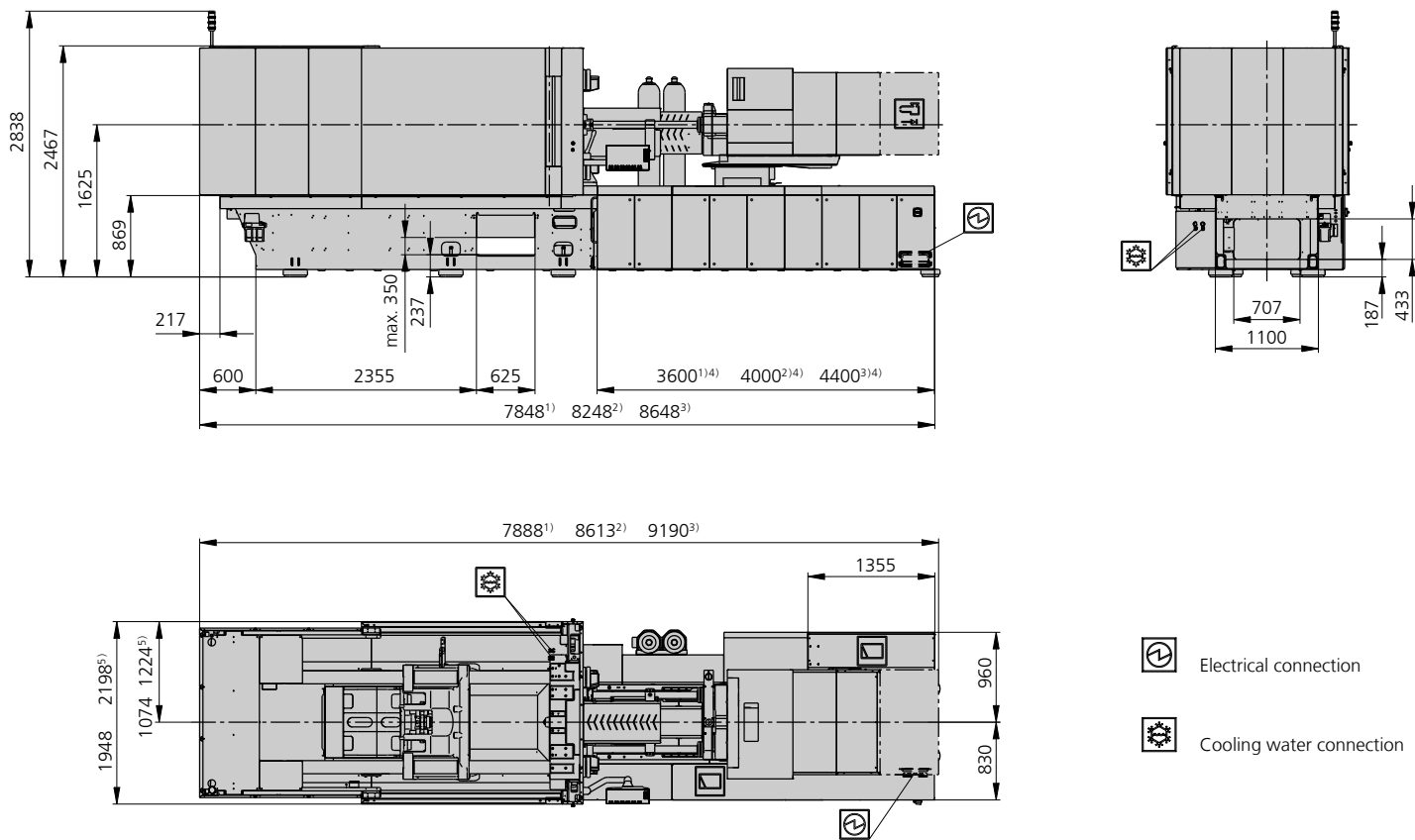
Distance between tie bars: 820 x 820 mm

Clamping force: 4000 kN

Injection unit (acc. to EUROMAP): 2100, 3200, 4600

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# MACHINE DIMENSIONS | 820 H



1) Injection unit 2100  
2) Injection unit 3200  
3) Injection unit 4600  
4) Depending on the performance and equipment of the injection units/clamping unit  
5) Option – extended equipment, protection

# TECHNICAL DATA | 820 H

| Clamping unit                       |              | 820 H           |
|-------------------------------------|--------------|-----------------|
| with clamping force                 | max. kN      | 4000            |
| Opening force   stroke              | max. kN   mm | ---   750       |
| Mould height, fixed   variable      | min.-max. mm | ---   350-850   |
| Platen daylight fixed   variable    | max. mm      | ---   1100-1600 |
| Distance between tie bars (w x h)   | mm           | 820 x 820       |
| Mould mounting platens (w x h)      | max. mm      | 1171 x 1171     |
| Weight of movable mould half        | max. kg      | 4000            |
| Ejector force   stroke              | max. kN   mm | 86   250        |
| Dry cycle time EUROMAP <sup>2</sup> | min. s - mm  | 2,3 - 574       |

| Injection unit                           |                         | 2100      |      |      | 3200      |      |      | 4600      |      |      |
|------------------------------------------|-------------------------|-----------|------|------|-----------|------|------|-----------|------|------|
| with screw diameter                      | mm                      | 60        | 70   | 80   | 70        | 80   | 90   | 80        | 90   | 100  |
| Effective screw length                   | L/D                     | 23        | 20   | 17,5 | 23        | 20   | 18   | 22,5      | 20   | 18   |
| Screw stroke                             | max. mm                 | 280       |      |      | 320       |      |      | 360       |      |      |
| Calculated stroke volume                 | max. cm <sup>3</sup>    | 792       | 1078 | 1407 | 1232      | 1608 | 2036 | 1810      | 2290 | 2827 |
| Shot weight                              | max. g PS               | 723       | 984  | 1286 | 1125      | 1469 | 1860 | 1653      | 2092 | 2583 |
| Material throughput                      | max. kg/h PS            | 125       | 145  | 175  | 185       | 215  | 250  | 255       | 295  | 330  |
|                                          | max. kg/h PA6.6         | 62        | 74   | 88   | 93        | 110  | 125  | 120       | 150  | 170  |
| Injection pressure                       | max. bar                | 2500      | 2000 | 1530 | 2500      | 2000 | 1580 | 2500      | 2000 | 1620 |
| Holding pressure                         | max. bar                | 2500      | 2000 | 1530 | 2500      | 2000 | 1580 | 2500      | 2000 | 1620 |
| Injection flow                           | max. cm <sup>3</sup> /s | 848       | 1155 | 1508 | 1155      | 1508 | 1909 | 1257      | 1590 | 1963 |
| Screw circumferential speed <sup>2</sup> | max. m/min              | 51        | 60   | 69   | 53        | 60   | 68   | 53        | 60   | 66   |
| Screw torque <sup>2</sup>                | max. Nm                 | 2140      | 2500 | 2850 | 3140      | 3590 | 4040 | 4400      | 4950 | 5500 |
| Nozzle contact force   retraction stroke | max. kN   mm            | 110   600 |      |      | 110   600 |      |      | 110   600 |      |      |
| Heating capacity   zones                 | kW                      | 31,2   8  |      |      | 38,4   8  |      |      | 51,2   9  |      |      |

| Drive and connection                         |             |  |  |  |             |       |       |
|----------------------------------------------|-------------|--|--|--|-------------|-------|-------|
| with injection unit                          |             |  |  |  | 2100        | 3200  | 4600  |
| Net weight of machine                        | kg          |  |  |  | 24000       | 25000 | 26700 |
| Sound press. level   Insecurity <sup>4</sup> | dB(A)       |  |  |  | 65   3      |       |       |
| Oil filling                                  | l           |  |  |  | 410         | 530   | 570   |
| Drive power <sup>2</sup>                     | max. kW     |  |  |  | ---         |       |       |
| Electrical connection <sup>3</sup>           | kW          |  |  |  | 114         | 145   | 196   |
|                                              | Total       |  |  |  | ---         |       |       |
|                                              | Machine     |  |  |  | 160         | 200   | 300   |
|                                              | Heating     |  |  |  | 50          | 63    | 80    |
| Cooling water connection                     | max. °C     |  |  |  | 30          |       |       |
|                                              | min. Δp bar |  |  |  | 1,5   DN 25 |       |       |

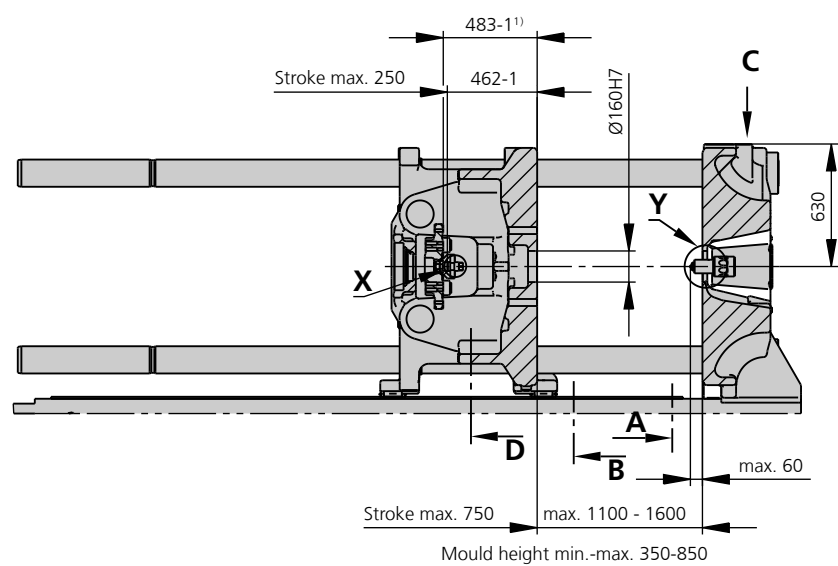
| Machine type                               |  |
|--------------------------------------------|--|
| with EUROMAP size designation <sup>1</sup> |  |
| 820 H 4000-2100   3200   4600              |  |

## Upon request: other machine types and mould installation heights, screws, drive powers etc.

All specifications relate to the basic machine version. Deviations are possible depending on variants, process settings and material type. Depending on the drive, certain combinations, e.g. max. injection pressure and max. injection flow may be mutually exclusive.

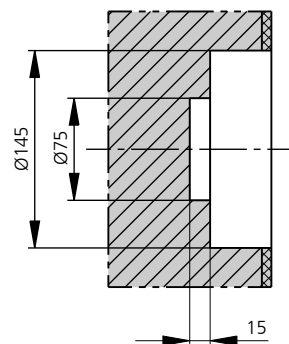
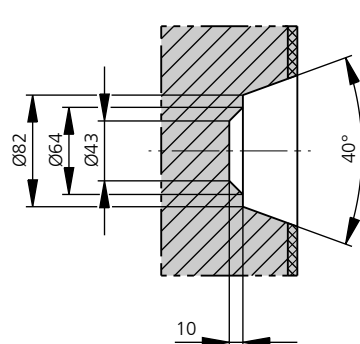
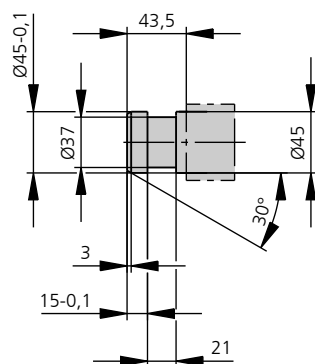
- 1) Clamping force (kN) - size of injection unit = max. stroke volume (cm<sup>3</sup>) x max. injection pressure (kbar)
  - 2) Specifications depend on the drive variant / drive configuration.
  - 3) Specifications relate to 400 V/50 Hz.
  - 4) Emission sound pressure level at the workplace. Detailed information in the operating instructions.
- [ ] Specifications apply to alternative equipment.

MOULD INSTALLATION DIMENSIONS | 820 H



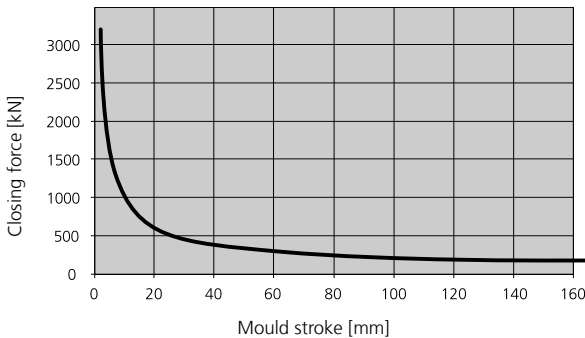
Ejector bolt | X

Bore in mould (if required) | Y



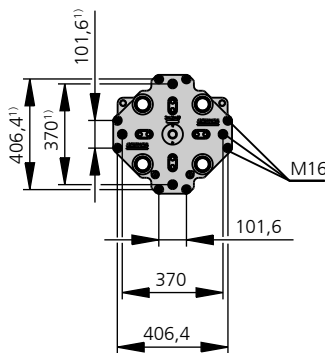
thermoset version  
Injection unit 2100 available on request

Closing force for spring moulds / during injection compression moulding\*

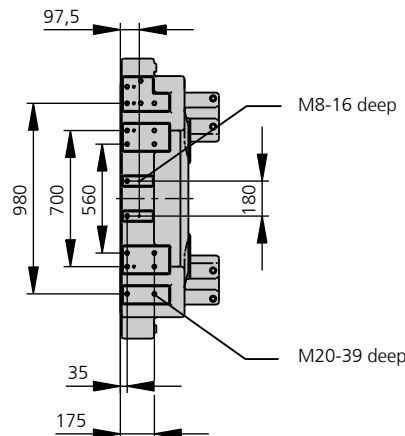


\* automatic locking force adjustment up to 25 kN

Ejector plate | D



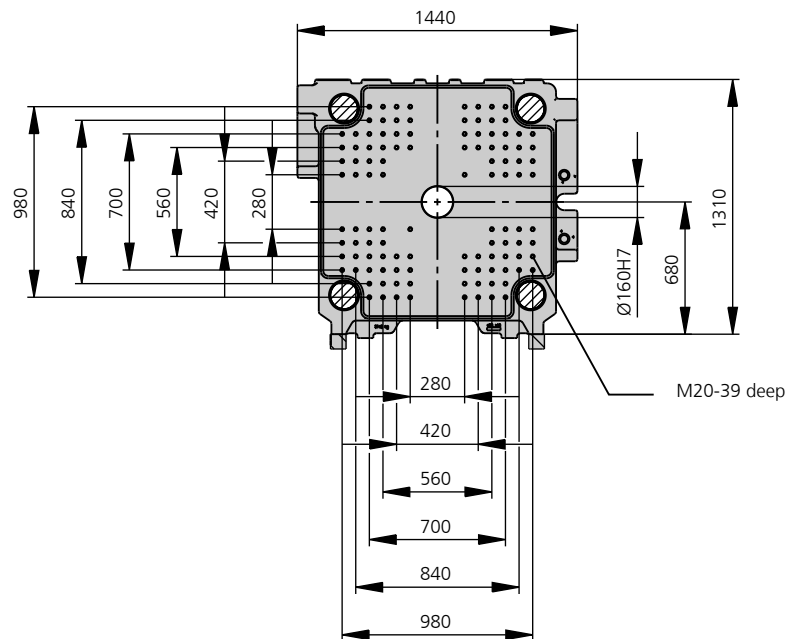
Robotic system mounting | C



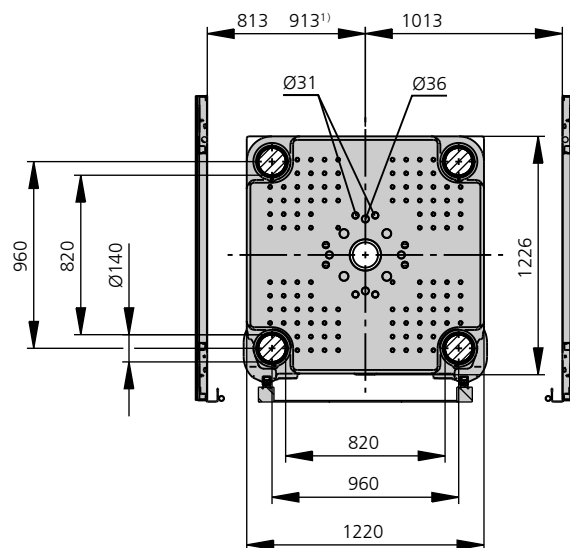
1) Positions of ejector plate

# MOULD INSTALLATION DIMENSIONS | 820 H

Fixed mould mounting platen | A



Moving mould mounting platen | B



# SHOT WEIGHTS | 820 H

## Theoretical shot weights for the most important injection moulding materials

| Injection units according to EUROMAP |                                      | 2100 |      |      | 3200 |      |      | 4600 |      |      |
|--------------------------------------|--------------------------------------|------|------|------|------|------|------|------|------|------|
| Screw diameter                       | mm                                   | 60   | 70   | 80   | 70   | 80   | 90   | 80   | 90   | 100  |
| Polystyrene                          | max. g PS                            | 723  | 984  | 1286 | 1125 | 1469 | 1860 | 1653 | 2092 | 2583 |
| Styrene heteropolymerizates          | max. g SB                            | 707  | 962  | 1256 | 1099 | 1436 | 1817 | 1615 | 2044 | 2523 |
|                                      | max. g SAN, ABS <sup>1)</sup>        | 693  | 943  | 1231 | 1077 | 1407 | 1781 | 1583 | 2003 | 2473 |
| Cellulose acetate                    | max. g CA <sup>1)</sup>              | 814  | 1108 | 1447 | 1266 | 1654 | 2093 | 1860 | 2354 | 2907 |
| Celluloseacetobutyrate               | max. g CAB <sup>1)</sup>             | 757  | 1030 | 1346 | 1177 | 1538 | 1946 | 1730 | 2189 | 2703 |
| Polymethyl methacrylate              | max. g PMMA                          | 747  | 1017 | 1329 | 1163 | 1518 | 1922 | 1708 | 2162 | 2669 |
| Polyphenylene ether, mod.            | max. g PPE                           | 671  | 914  | 1194 | 1044 | 1364 | 1726 | 1535 | 1942 | 2398 |
| Polycarbonate                        | max. g PC                            | 760  | 1034 | 1351 | 1182 | 1544 | 1954 | 1737 | 2199 | 2714 |
| Polysulphone                         | max. g PSU                           | 785  | 1069 | 1396 | 1222 | 1596 | 2019 | 1795 | 2272 | 2805 |
| Polyamides                           | max. g PA 6.6   PA 6 <sup>1)</sup>   | 719  | 978  | 1278 | 1118 | 1461 | 1848 | 1643 | 2080 | 2568 |
|                                      | max. g PA 6.10   PA 11 <sup>1)</sup> | 671  | 914  | 1194 | 1044 | 1364 | 1726 | 1535 | 1942 | 2398 |
| Polyoximethylene (Polyacetal)        | max. g POM                           | 893  | 1215 | 1588 | 1389 | 1814 | 2296 | 2041 | 2583 | 3189 |
| Polyethylene terephthalate           | max. g PET                           | 861  | 1172 | 1531 | 1340 | 1750 | 2215 | 1969 | 2492 | 3076 |
| Polyethylene                         | max. g PE-LD                         | 546  | 744  | 971  | 850  | 1110 | 1405 | 1249 | 1580 | 1951 |
|                                      | max. g PE-HD                         | 564  | 768  | 1003 | 877  | 1146 | 1450 | 1289 | 1632 | 2015 |
| Polypropylene                        | max. g PP                            | 576  | 784  | 1025 | 897  | 1171 | 1482 | 1317 | 1667 | 2058 |
| Fluoropolymerides                    | max. g FEP, PFA, PCTFE <sup>1)</sup> | 1157 | 1575 | 2058 | 1800 | 2352 | 2976 | 2646 | 3348 | 4134 |
|                                      | max. g ETFE                          | 1015 | 1382 | 1805 | 1579 | 2063 | 2611 | 2321 | 2937 | 3626 |
| Polyvinyl chloride                   | max. g PVC-U                         | 874  | 1190 | 1554 | 1360 | 1776 | 2247 | 1998 | 2528 | 3121 |
|                                      | max. g PVC-P <sup>1)</sup>           | 808  | 1099 | 1436 | 1256 | 1641 | 2076 | 1846 | 2336 | 2884 |

1) average value

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